

United States
Department of
Agriculture



**Lewis and Clark
National Forest Plan**
P.O. Box 871
Great Falls, Mt. 59403

Proposed Lewis & Clark National Forest Plan



Photo: Belt Creek Canyon below Monarch in the Little Belt Mountains.

PREFACE

DEIS

The Proposed Lewis and Clark National Forest Land and Resource Management Plan, Proposed Forest Plan for short, is an integrated land and resource management plan. Rather than several plans for different resources, the Proposed Forest Plan provides management direction for each resource on the entire Forest.

Content

The Proposed Forest Plan is based on the analysis and the selection of an alternative as described in the accompanying DEIS (Draft Environmental Impact Statement). The Forest Plan links the RPA (Resources Planning Act) National Program to the Forest with specific outputs and standards and guidelines responsive to RPA. The Forest Plan will in turn be linked to the project level program of the Forest.

The Forest Plan is comprised of five chapters. These are:

Chapter I, Introduction, describes the Forest Service planning process, the Forest, and specific planning actions for the Forest.

Chapter II, Issues and Concerns, lists the major issues and concerns identified for the Forest Plan. With each issue and concern is listed the disposition of the issue or concern: whether it is answered, resolved, or continued on in another process. Reference is given to what part of the Forest Plan or DEIS the answer or resolution may be found.

Chapter III, Analysis of the Management Situation, presents a summary of the analysis of the present management situation of the Forest. A brief description is given of the current management situation, projected use levels, production potentials, and supply potentials under the Forest Plan.

Chapter IV, Forest Management Direction, is divided into three sections: Forest-wide Management Direction, Management Areas, and Geographic Units.

Forest-wide Management Direction gives Forest-wide goals and objectives, output targets, and management guidelines.

PREFACE

Management Areas give specific direction for each area under the Proposed Forest Plan. The future condition for each area is described along with the practices with their corresponding standards and guidelines which will be used to achieve that condition.

Geographic Units describe each of 32 geographic units on the Forest, the past management activities which have taken place on that unit, and the future activities which are expected to take place under the Forest Plan.

Chapter V, Monitoring, lists those monitoring activities which must be done to ascertain the management direction actually leads to the future condition described in the Forest Plan, or if revisions or amendments are necessary to do so. Also included in this chapter are the research needs of the Forest to help achieve the goals and objectives of the Forest Plan or to monitor activities prescribed by the Forest Plan.

The Appendix contains information necessary to understand the Forest Plan.

Additional information and detail on planning processes, background information, source documents, and other information is referenced in the Forest Plan. Most of this information is available as planning records. Appendix A of the DEIS lists those planning records that are available on request. Other information too voluminous or unavailable to provide separately may be reviewed during normal business hours (8:30 a.m. to 4:30 p.m. weekdays, except holidays) at the Supervisor's Office, CASCO Building, 16th Street and 2nd Avenue North, Great Falls, Montana. Request for copies of available planning records should be sent to:

Lewis and Clark National Forest
P.O. Box 871
Great Falls, Montana 59403

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FOREST PLAN

CHAPTER I INTRODUCTION

Overview

This chapter gives an introduction to the Proposed Forest Plan. The first part describes the Forest. The second part describes the planning area. The third part describes specific planning actions proposed in this plan.

PLANNING PROCESS

Purpose

This Forest Plan is the proposed long-term direction for managing the Lewis and Clark National Forest. The Forest Plan contains the overall direction and activities that will be required to achieve the desired state of the Forests in the future.

The purpose of the Lewis and Clark Forest Plan is to:

- (1) present a summary of the analysis of the management situation which describes the Forest's ability to supply goods and services;
- (2) provide management direction to the Forest;
- (3) set resource objectives and targets for the Forest;
- (4) list the standards and guidelines needed to manage the Forest;
- (5) outline the monitoring and evaluation process which will be used to determine and report achievements and effects of Forest goals and objectives; and
- (6) identify research needs.

Planning Process

Preparation of the Forest Plan is required by RPA (Forest and Rangeland Renewable Resource Planning Act), as amended by the NFMA (National Forest Management Act). Assessment of its environmental impacts is required by NEPA (National Environmental Policy Act) and the implementing regulations of NFMA. The Forest Plan replaces all previous resource management plans prepared for the Forest and serves as the overall management plan.

The analysis that supports decisions made in the Forest Plan is contained in the accompanying DEIS (Draft Environmental Impact Statement). The DEIS describes the alternatives considered in arriving at this Proposed Plan, and displays the environmental effects of implementing the Forest Plan and the other alternatives considered.

RPA Assessment and Program

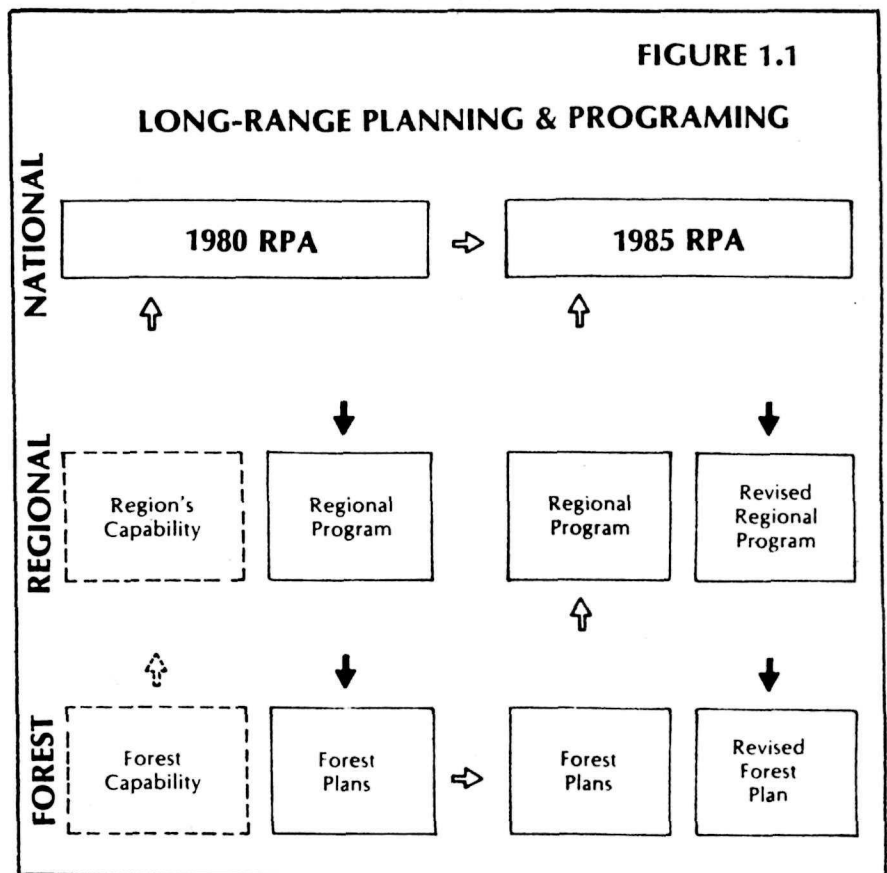
Every 10 years a comprehensive national assessment is made of the national forest and rangeland renewable resource situation. The findings of the assessment are then used to help determine the desired level of future outputs resulting from Forest Service programs.

PLANNING PROCESS

Planning Cycle

Alternative levels of outputs and associated costs are examined in the RPA Program, which is prepared every 5 years. Based on an analysis of these alternatives, along with consideration of public views, the Secretary of Agriculture decides upon a Recommended RPA Program for the Forest Service. The Recommended RPA Program along with a Presidential Statement of Policy are transmitted to Congress. The final Policy Statement and Program serve as the guide for planning and developing future Forest Service budget proposals. Each Forest Service Region disaggregates its share of the national program to the Forests of that Region. This disaggregation is based on the detailed information gathered at the Forest level.

The planning process is characterized by a continuous cycle that must be viewed within a time perspective. Each plan has special relationships to other plans prepared both before and after it. The RPA Program will be updated every 5 years. All other plans will be examined at least every 5 years and updated, as needed, to reflect new data needs, changes, and results of other plans. These interrelationships are shown on Figure 1.1.

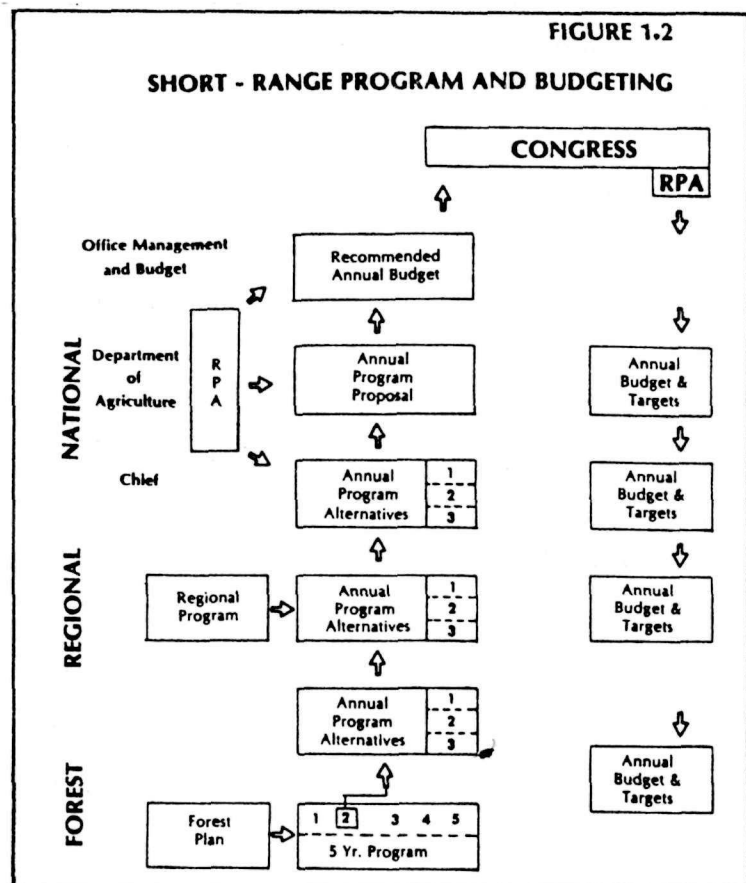


PLANNING PROCESS

Program Development and Budgeting

The RPA Program and Forest Plan set direction on what should be done in terms of objectives, output targets, standards, and guidelines. They also include an estimated cost to implement the plans based on the best information available. However, the rate of implementation is dependent upon the amount of resources (funding and workforce) made available to the Forest Service through the annual Federal budgeting and appropriation processes.

The funds necessary to carry out the Forest Plan program are dependent on a political action process. The Forest submits its annual program through the Region to the Chief. The Chief develops an overall program for the Forest Service, which in turn is added to the annual program for the Department of Agriculture. This program is reviewed and recommended by the Office of Management and Budget. Based on National needs and priorities, Congress funds these programs and sets National targets. These targets and funds are returned to the Forest through the Region. Through a review of the annual program and the annual budget, the Forest develops an annual work program. Figure 1.2 shows this process.



PLANNING PROCESS

Budget Proposals

Budget proposals represent firm commitments by these units to achieve a certain level of output targets at a specified cost. Therefore, cost estimates are updated annually to reflect current conditions and the details of a specific set of project proposals.

Although RPA targets and Forest Service plans serve as the basis for the initial budget proposals, they are frequently adjusted to reflect current conditions and the Administration and Congressional priorities as expressed through the appropriation process. Once Congress passes the Appropriation Act, the budget becomes a firm contract of work for which the Forest Service is held accountable. Normally, these adjustments made during the budgeting process are within the scope of Forest Plans.

Finally, it is important to remember that planning is a continuous process. Judgments are made on the basis of the best information available at the time plans are made. To keep the planning process viable and responsive, plans will be adjusted over time to reflect new and better data or changes in assumptions and public needs.

Statement of Compliance

The Forest Plan was developed in compliance with NFMA (National Forest Management Act) requirements based on the principles established in 36 CFR 219 (b) (1) through (14), as well as all requirements of the NEPA (National Environmental Policy Act). The ensuing document and supportive materials referenced are available for public review.

On December 12, 1980, Congress amended the President's Statement of Policy for RPA. The revised Statement of Policy calls for forest and rangelands to be managed to maximize social and economic contributions to the Nation's well-being in an environmentally sound manner. The Forest Plan was prepared to comply with this policy.

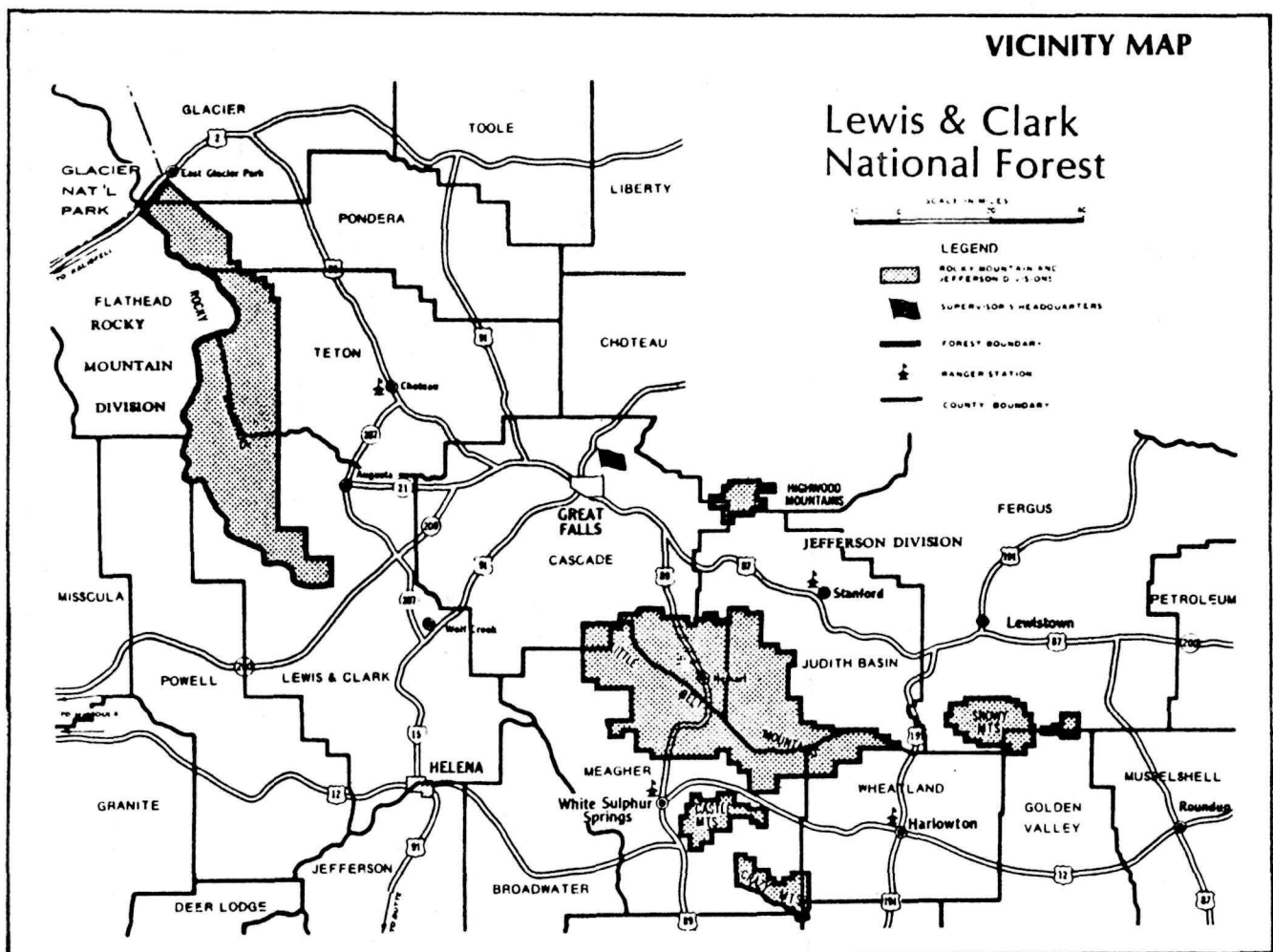
Previous Plans

The Forest Plan replaces all previous resource management plans prepared for the Forest. After approval of the Forest Plan, all permits, contracts, and other instruments for the use and occupancy of National Forest System lands must conform with the Forest Plan. In addition, all subsequent activities affecting the Forest, including budget proposals, will comply with the Forest Plan.

PLANNING AREA

GENERAL DESCRIPTION

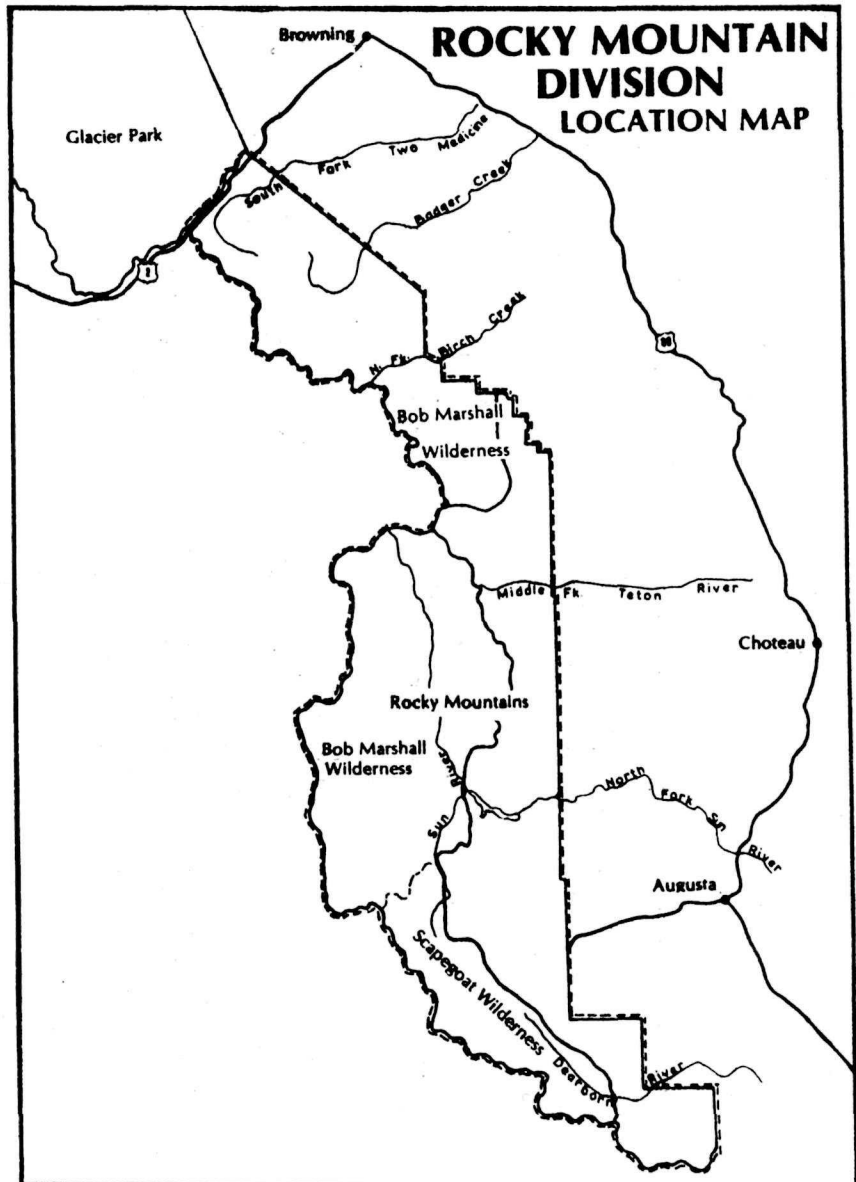
The Lewis and Clark National Forest is located in north-central Montana within the upper Missouri River system. Historically, the Forest has been referred to by two major divisions: the Rocky Mountain Division containing the Rocky Mountain Ranger District, and the Jefferson Division containing the Judith, Musselshell, and Kings Hill Ranger Districts.



PLANNING AREA

Rocky Mountain Division

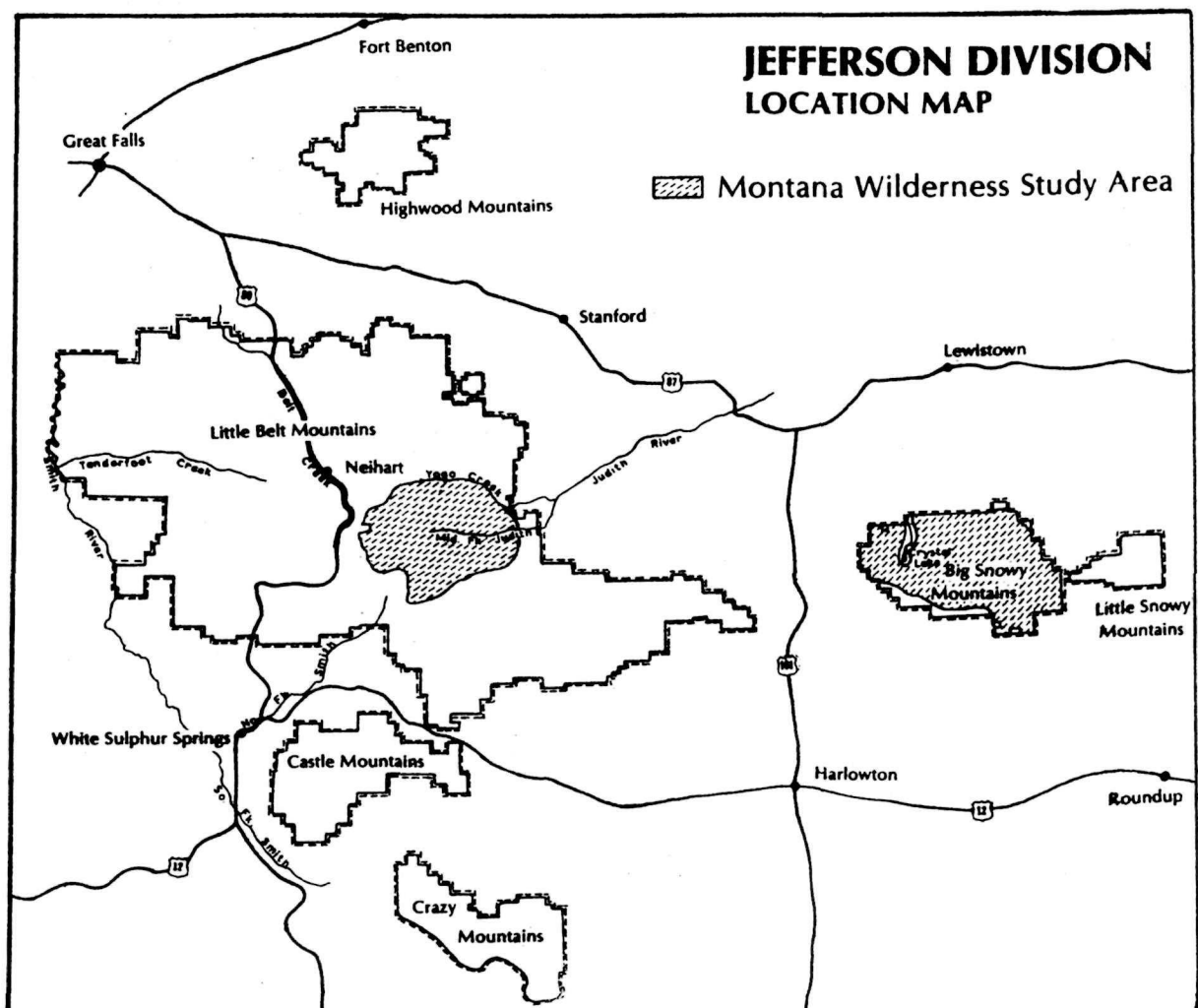
The Rocky Mountain Division, located in portions of Lewis and Clark, Teton, Pondera, and Glacier Counties, is bounded on the west by the Continental Divide and the Flathead National Forest, on the north by U.S. Highway 2 and Glacier National Park, on the south by the Helena National Forest, and on the east by the Blackfeet Indian Reservation and private lands.



PLANNING AREA

Jefferson Division

The Jefferson Division lies east and south of Great Falls and is surrounded by private or other Federal or State lands. The Jefferson Division, located in portions of Cascade, Chouteau, Judith Basin, Fergus, Golden Valley, Wheatland, Sweetgrass, Park, and Meagher Counties, has six distinct mountain ranges. All National Forest land in these mountain ranges, with the exception of the Crazy Mountains, partially administered by the Gallatin National Forest, are administered by the Lewis and Clark National Forest. The Crazy Mountains, lying southwest of Harlowton, are partly administered by the Lewis and Clark and partly by the Gallatin National Forest to the south. These mountain ranges are: the Little Belt Mountains, southeast of Great Falls; Castle Mountains, east and south of White Sulphur Springs; Crazy Mountains, southwest of Harlowton; Big Snowy and Little Snowy Mountains, south of Lewistown; and Highwood Mountains, east of Great Falls.



SPECIFIC PLANNING ACTIONS

THREE SPECIFIC PLANNING ACTIONS

Timber Planning

Because of their complexity, three specific planning actions are described in detail. These are timber planning, oil and gas, and transportation planning.

In the process used in timber planning, timber aerial P.I. types (photograph interpretation types) were mapped and acres calculated by capability area. Condition classes were derived by sorting the timber inventory data by habitat type and P.I. type. Existing yield tables were developed by plotting the volume of sample stands against age. Regenerated yield tables were derived from the Eastside Growth Prognosis Model. Yield tables, analysis areas, management prescriptions, and age provided the input to FORPLAN, which was used to allocate and schedule resources management prescriptions.

Oil and Gas

By law, the Mineral Leasing Act of 1920, the BLM (Bureau of Land Management) is responsible for mineral leasing on Federal lands. By interagency agreement, the BLM refers all applications to lease National Forest system lands to the Forest Service for review and recommendation. The Forest Service recommends to the BLM whether those lands should be leased and, if so, what controls (stipulations) are needed to protect surface values and use.

Presently, based on previous environmental analyses, 456,898 acres of the Forest have been leased or recommendations on leasing have been made. Another 63,122 lease applications are pending in the Silver King-Falls Creek and Renshaw recommended wilderness. Lease applications have been made on 355,112 acres of the Bob Marshall and Scapegoat Wildernesses (Lewis and Clark National Forest).

At the time the environmental assessments were prepared, many of the decisions needed to manage the surface resources were pending the completion of the Forest Plan. The environmental assessment strategy was to preserve all the surface management options available by adopting the most restrictive surface management use possible. With the completion of this Forest Plan, the guidelines used in the environmental assessments have been written to be more specific in response to the management objective of each management area.

SPECIFIC PLANNING ACTIONS

Transportation Planning

Activities on leases which do not involve exploratory drilling or field development are regulated by the Forest Service. Activities which do involve exploratory drilling or field development are regulated under authority of the USGS (U.S. Geological Survey). Through a Cooperative Agreement, the USGS is responsible for enforcement of surface protection and reclamation requirements established by the Forest Service. Although the Forest Service does not retain the approval authority for certain activities on leases, it does participate in the review and approval of all applications to drill, and on-the-ground administration of all on-going projects in conjunction with the USGS.

Under the Forest Plan, the Forest will continue to make leasing recommendations on ALL lands not withdrawn from mineral entry as outlined by the Forest-wide Management Guidelines. These guidelines provide for the continued protection of surface resource values.

The Forest Transportation Road System is divided into two groups: (1) Public roads, Forest arterial roads, collector roads; and (2) local roads. These groups are referred to as the Arterial-Collector System and the Local System.

Different Arterial-Collector Systems were located on capability area maps and their characteristics and cost analyzed through the Northern Region Network Analysis Program, MINCOST. Characteristics analyzed included slope, stability, presence of non-ripple rock, erodibility, and need for road surfacing. Costs included construction/reconstruction, protection, maintenance, and vehicle operation cost. Transportation compartments were established by identifying barriers to roads through the use of maps and aerial photos. Each transportation compartment is accessed by one arterial-collector road. The Network Analysis Program identified the most cost-efficient route to access a transportation compartment.

The Local System is needed only when a resource activity is undertaken. Road design and location are part of the project planning for the activity.

The Forest Plan identifies further road corridors for the Arterial-Collector System for both surface resource management and subsurface uses. Corridors for these roads are shown on Geographic Unit Maps in Chapter IV.

FOREST PLAN

CHAPTER II

ISSUES AND CONCERNS

Overview

Early in the process of developing a Forest Plan, major public issues and management concerns were identified. A public issue is a question of widespread public interest relating to the management of the Forest. A management concern is an issue or problem identified by the Forest Service requiring resolution. A process involving public workshops, interviews, and evaluation and verification of workshop results by interview data was used to identify public issues.

Those issues which could be resolved by the Forest Plan and which were of significant public concern were selected as major issues. Added to those issues were management concerns developed by Forest Service personnel.

This chapter begins with a description of the process used to identify the major issues. This description is followed by a list of the issues and concerns by resource element (e.g. recreation, wilderness, wildlife) and the disposition or resolution of each. Additional detail is available in planning record, "Identification of Public Issues and Management Concerns."

INTRODUCTION

ISSUES AND CONCERNS PROCESS

Public Workshops

Public workshops were held in 11 cities in July and August 1979 to gather comments from the public on issues.

Over 1,200 people received pre-meeting packets, and articles appeared in most local Central Montana newspapers prior to the meetings.

Approximately 192 people took part in the workshops held in:

Lewistown
Roundup
Harlowton
White Sulphur Springs
Fort Benton
Stanford
Neihart
Choteau
Augusta
Browning
Great Falls

Nominal Group Process

A process for gathering and prioritizing group concerns called the NGP (Nominal Group Process) was used to obtain objective information from the public. NGP allows people to record all their concerns and then prioritize and rate their most important concerns.

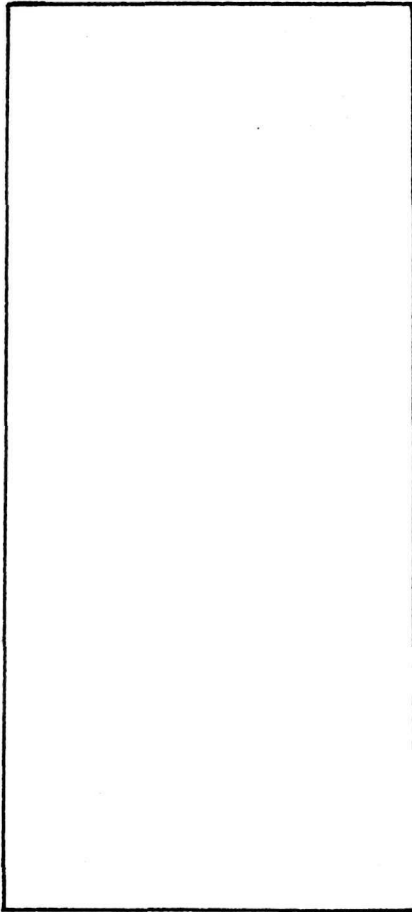
Social Data Interviews

Concurrent with the public workshops, a variety of individuals were interviewed to gather information for the social data base. The individuals interviewed were selected from a list suggested by the each District Ranger and included local government, business, industry, and labor leaders as well as a variety of Forest users. Over 70 separate interviews were conducted.

Evaluation

Comments were taken directly from worksheets developed at each public workshop. Similar comments were grouped in categories of like concern.

The various categories were separated into three basic groups - those which should be handled by other entities (agencies, congressional delegations), those which should be dealt with in other ways than through the Forest Plan, and those which could be handled by the Forest Plan.



Using factors - number of towns where like comments were expressed, the number of people ranking comments as their most important, the ranking given, and the weighted rating importance given - 32 concerns were selected as issues for the Forest Plan. Those concerns not selected were all rated by less than 10 percent of the people attending as one of their top nine concerns.

After selection of the 32 issues, actual comments within each group were again reviewed and a primary issue question was developed for each issue. Additional questions covering other aspects of the issue were also developed, where necessary, to ensure that the issue dealt with all the public's concerns for that issue.

Additional questions, not brought up by the public, were added to some issues or identified as separate concerns. These questions are referred to as Forest Service or management concerns. Seven management concerns were identified.

Following is a list by resource element, of the public issues and management concerns and their disposition.

RECREATION

ISSUE 1 - AMOUNT OF RECREATION

1a

What recreation activities and use levels should be permitted?

Resolved through managment area prescriptions.

What recreation settings and experiences should be provided?

Resolved through allocation; By 2030, 448,000 acres for primitive recreation, 855,000 acres for semi-primitive recreation, 523,000 acres roaded natural appearing recreation, and 17,000 acres rural recreation.

1b

Should land be allocated to certain recreation activities at the exclusion of others?

Will be resolved as outlined in Forest Management Guideline No. L-2, Travel Plan (page 4-37).

1c

How can recreation opportunities be made more visible to recreationists?

Resolved by Forest Management Guideline No. A-1, Recreation Information(page 4-6).

ISSUE 2 - AMOUNT OF CAMPGROUNDS

2a

How many campgrounds or camping sites should be provided (both road and trail oriented)?

Resolved through allocation of 7 additional developed sites (31,500 RVDs) by 2030.

Should overnight trail shelters be provided?

Resolved by Forest Management Guideline No. A-4, Travel Shelters (page 4-7).

RECREATION

2b ISSUE 3 - EXISTING CAMPGROUND ADMINISTRATION AND MANAGEMENT 3a 3b 3c	What type of facilities and number of sites should be provided at new campgrounds if they are constructed? Resolved by Forest Management Guideline No. A-2, Developed Recreation Operation, Maintenance and Administration (page 4-6). What facilities should be provided at developed campgrounds? Resolved by Forest Management Guideline No. A-2, Developed Recreation Operation, Maintenance and Administration (page 4-6). How and to what extent should recreation regulations be enforced? Resolved by Forest Management Guideline No. A-2, Developed Recreation Operation, Maintenance and Administration (page 4-6). What services (firewood, garbage pickup, clean-up, etc.) should be provided at campgrounds? Resolved by Forest Management Guideline No. A-2, Developed Recreation Operation, Maintenance and Administration (page 4-6).
ISSUE 4 - RECREATION RESIDENCES PERMITS 4a	What level of maintenance should be provided at campgrounds? Resolved by Forest Management Guideline No. A-2, Developed Recreation Operation, Maintenance and Administration (page 4-6). Should existing recreation residences permits be continued? Resolved by Forest Management Guideline No. A-3, Recreation Residences (page 4-7). How should the conflict between recreation residences and public need for recreation, roads, and wildlife be resolved? Resolved by Forest Management Guideline No. A-3, Recreation Residences (page 4-7).

RECREATION

4b

To what extent should compliance with laws and regulations concerning be monitored and enforced?

Resolved by Forest Management Guideline No. A-3, Recreation Residences (page 4-7).

ISSUE 5 - AMOUNT OF MOTORIZED RECREATION

5a

What opportunities for both summer and winter off-road vehicle use will be provided?

Should more snowmobile trails be marked?

Resolved by Forest Management Guideline No. A-5, Winter Dispersed Recreation Opportunity (page 4-7).

5b

How can we make existing motorized recreation opportunities more visible?

Resolved by Forest Management Guideline No. A-1, Recreation Information, (page 4-6).

ISSUE 6 - CONTROL OR RESTRICTIONS ON MOTORIZED RECREATION

How much control (enforcement, closures, education) of off-road vehicles should be implemented?

Will be resolved as outlined in Forest Management Guideline No. L-2, Travel Plan (page 4-37).

6a

How should resource damage from motorized recreation be controlled?

6b

Where should motorized recreation not be allowed?

Will be resolved as outlined in Forest Management Guideline No. L-2, Travel Plan (page 4-37).

ISSUE 7 - AMOUNT OF TRAILS AND TRAIL IMPROVEMENTS

Should additional trails be provided?

Resolved by providing 100 miles of additional trail reconstruction or construction by 2030.

7a

What maintenance should be provided on existing trails?

Resolved through trail standards and guidelines for each management area.

RECREATION

7b	Should use intensity be limited on trails? Wilderness use intensity will be determined by a capacity study (see Appendix D). Use intensity for other areas of the Forest intensity will not be analyzed at this time.
7c	Should certain uses be allowed on trails at the exclusion of others? Will be resolved as outlined in Forest Management Guideline No. L-2, Travel Plan (page 4-37).
7d	If new trails are developed, to what standard should they be constructed? Resolved by management area prescriptions, standards, and guidelines for each management area.
7e	What signing should be provided on trails? Resolved by Forest Management Guideline No. L-1, Signing (page 4-37).

WILDERNESS

ISSUE 8 - AMOUNT OF WILDERNESS

Should the Deep Creek-Reservoir North RARE II further planning area be recommended to Congress for inclusion in the National Wilderness Preservation System?

Resolution of this issue has been postponed pending determination of the oil and gas potential of the area, Forest Management Guideline B-1, Deep Creek-Reservoir North Study Area (page 4-9).

ISSUE 9 - PRESERVING OR CONTROLLING ESTABLISHED WILDERNESS

Should the amount of wilderness use be controlled and how?

Resolved by Forest Management Guideline No. B-2, Wilderness Management (page 4-9). Also see Appendix D.

9a

How can wilderness resources be protected from misuse or overuse?

Resolved by Forest Management Guideline No. B-2, Wilderness Management (page 4-9). Also see Appendix D.

9b

How much oil and gas exploration and development should be allowed in wilderness?

Recommendation on oil and gas leasing will be addressed in a separate environmental analysis.

9c

Should wildfire be permitted to burn in the wilderness? If so, under what conditions and with what controls?

A Fire Management Plan for the Scapegoat Wilderness/Danaher portion of the Bob Marshall Wilderness was approved on July 1981. A Fire Management Plan for the remainder of the Bob Marshall is scheduled to be completed by 1985.

9d

How should outfitters and guides be managed?

Resolved by Forest Management Guideline No. B-2, Wilderness Management (page 4-9). Also see Appendix D.

WILDERNESS

9e

What effects do structures have on apparent naturalness?

Resolved by the Forest Management Guideline B-2, Wilderness Management (page 4-9).
Also see Appendix D.

FISH AND WILDLIFE

ISSUE 10 - MANAGEMENT OF FISH AND WILDLIFE HABITAT

10a

How much fish and wildlife habitat should be improved and to what extent?

Resolved through management area prescriptions which allocate about 3,200 acre equivalents of wildlife habitat improvement yearly.

10b

How can the quality of fish and wildlife habitat be improved through coordination with other resources and to what extent should it be improved?

Resolved by Forest Management Guideline Nos. C-1, Wildlife Coordination (page 4-10), C-3 Wildlife Habitat, and C-4, Fish Habitat (page 4-11).

10c

How can abused or degraded wildlife habitat be rehabilitated and to what extent?

Resolved through management area prescriptions which allocate about 3,200 acre equivalents of wildlife habitat improvement yearly.

10d

How can wildlife and fish population numbers and programs be better coordinated with all other Forest users in cooperation with the State Department of Fish, Wildlife, and Parks?

Resolved by Forest Management Guideline No. C-1, Wildlife Coordination (page 4-10).

10e

How should the needs of raptor and non-game habitat affect land management decisions?

Resolved through the wildlife management practices contained in the prescriptions for each management area.

How will habitat be identified and managed to sustain or increase these threatened and endangered species populations?

Resolved by Forest Management Guideline Nos. C-2, Threatened and Endangered Species (page 4-10) and C-3, Wildlife Guidelines (page 4-10). Also see Appendix E.

FISH AND WILDLIFE

ISSUE 11 - EFFECTS OF OTHER USES ON WILDLIFE

How should conflicts be resolved between wildlife and management activities of: domestic livestock grazing; timber; oil and gas exploration and development; minerals; recreation; and wilderness?

Resolved by Forest Management Guideline Nos. B-2, Wilderness Management (page 4- 9), C-1 Wildlife Coordination (page 4-10), C-2 Threatened and Endangered Species (page 4-10), C-3 Wildlife Guidelines (page 4-10), C-4 Fish Habitat (page 4-11), R-1 Riparian Zone Management (page 4-12), W-1 Wetland Zone Management (page 4- 13), E-1 Timber Management Coordination & Information (page 4-15), G-1 Standards for Seismic Exploration (page 4-18), and G-3 Standards for Rehabilitation (page 4-32).

11a

How should native fish and wildlife species be maintained?

Resolved by wildlife management practices contained in the management area prescriptions.

11b

How can Travel Plan restrictions be implemented and enforced to achieve wildlife management objectives?

Will be resolved as outlined in Forest Management Guideline No. L-2, Travel Plan (page 4-37).

ISSUE 12 - ENDANGERED SPECIES AND OIL AND GAS EXPLORATION AND DEVELOPMENT

How much oil and gas activity can be accepted and still meet the intent of the Endangered Species Act?

Resolved by Forest Management Guideline Nos. C-2, Threatened and Endangered Species (page 4-10); G-1, Standards for Seismic Exploration (page 4-18); and G-2, Standards for Oil and Gas Leasing, Exploration Drilling, Field Development and Production (page 4-24).

RANGE

ISSUE 13 - AMOUNT OF GRAZING

13a

How much domestic livestock grazing should be provided?

Resolved through the allocation of 79,200 animal unit months of domestic grazing by 2030.

13b

What is the present livestock grazing capacity of the Forest?

Resolved through maximum production potential analysis which showed that 90,000 animal unit months are the maximum useable potential.

13c

What management activities would sustain or increase present grazing capacity?

Resolved through quantitative analysis which analyzed such items as range improvements, timber harvest, and forage allocation. These activities are included in the management areas which have a grazing allocation.

13d

How should conflicts between grazing and riparian zones be resolved?

Resolved by practices, standards, and guidelines for Management Area R, Riparian Zones and Management Guideline No. R-1, Riparian Area (page 4-12).

How should conflicts between grazing and wetlands be resolved?

Resolved by Forest Management Guideline No. W-1, Wetland Zone Management (page 4-13).

RANGE

ISSUE 14 - RANGE IMPROVEMENTS

14a

Can and should the range structural and non-structural improvement program be improved and how?

Resolved by Forest Management Guideline No. D-1, Range Improvement (page 4-14).

14b

What cost sharing agreements for range improvements should the Forest enter into?

Resolved by Forest Management Guideline No. D-1, Range Improvements, (page 4-14).

ISSUE 15 - EFFECT OF OTHER USES OR PROBLEMS ON LIVESTOCK

Can and should range improvements be designed for multiple use purposes (such as wildlife) and how?

Resolved by the range and wildlife practices included in the management area prescriptions.

What are the effects of the following on domestic grazing? Clean Water Act; early hunting season; wilderness management; wildlife management; timber management; recreation management; and how can impacts be resolved?

This issue is answered and resolved in the DEIS especially in the range section in Chapter IV.

ISSUE 16 - RANGE FOR ELK AS WELL AS CATTLE

16a

How and where should range be provided for elk as well as cattle?

What should be the ratio for allocation of the forage base between elk and cattle?

Resolved through the allocation of 79,200 animal unit months for domestic grazing and habitat for 8,400 elk.

16b

How and where can wildlife habitat be complemented by grazing management?

Resolved by practices, standards, and guidelines on management areas for both grazing and wildlife.

RANGE

ISSUE 17 - CONTROL OF NOXIOUS WEEDS

17a

How can control of noxious weeds be improved and to what extent?

What is an effective control program for noxious weeds?

Resolved by Forest Management Guideline
No. D-2, Noxious Weeds (page 4-14).

17b

How should impacts on other resources due to chemical control of noxious weeds be lessened?

Resolved by Forest Management Guideline
No. D-2, Noxious Weeds (page 4-14).

TIMBER

ISSUE 18 - AMOUNT OF LOGGING

18a

How much timber should be harvested?

Resolved through allocation of 24 million board feet by 2030.

18b

How much timber should be harvested in high risk stands to reduce anticipated insect and disease losses?

Resolved by scheduling over 70 percent of the timber harvest in the lodgepole pine timber type for the next two decades and by Forest Management Guideline No. P-1, Insect and Disease (page 4-38).

How will the inability to clearcut and successfully establish regeneration in dry Douglas fir zones affect the Forest timber output?

Resolved through quantitative analysis (Growth Prognosis Model) and standards and guidelines for management area prescriptions, specifically, only the shelterwood system will be used on these zones. These measures will have little effect on total output.

ISSUE 19 - TIMBER HARVEST PLANNING AND CONTROL

19a

How can timber sales be prepared to provide proper coordination with other resources?

How can the local public be kept informed of timber sale planning efforts?

Resolved by Forest Management Guideline No. E-1, Timber Management Coordination and Information, (page 4-15).

19b

How should conflicts between timber harvest and wildlife be resolved?

Resolved by Forest Management Guideline Nos. C-1 Wildlife Coordination (page 4-10), C-2 Threatened and Endangered Species (page 4-10), C-3 Wildlife Guidelines (page 4-10), C-4 Fish Habitat (page 4-11), R-1 Riparian Zone Management (page 4-12), W-1 Wetland Zone Management (page 4-13), E-1 Timber Management Coordination and Information (page 4-15), and by the timber and wildlife practices contained in Management Areas A, B, C, and R.

TIMBER

ISSUE 20 - ECONOMICS OF HARVESTING IN MARGINAL AREAS

Should sales, including timber salvage, be planned on uneconomical areas?

Resolved through quantitative analysis of available, capable, and suitable lands and selection of an alternative that concentrates the timber harvest on the most cost-efficient areas and provides for salvage of timber on an opportunity basis.

ISSUE 21 - CLEARCUT METHOD OF HARVEST

What clearcutting, if any, should be allowed and how could clearcuts be coordinated with other uses?

Resolved by management practices, standards and guidelines related to the clearcut method of harvest in Management Areas A, B, and C.

ISSUE 22 - TIMBER UTILIZATION AND CLEANUP

What degree of slash cleanup should be required after timber harvest?

Resolved by Forest Management Guideline No. E-2, Firewood Administration and Utilization (page 4-15).

22a

How much low value material should timber purchasers be required to remove?

22b

How much logging slash should be available to wood cutters and how should it be made available?

22c

How should conflicts for dead material between free-use firewood cutters, commercial firewood cutters, post and pole product users, saw log users, and users from different geographic areas be resolved?

Resolved by Forest Management Guideline No. No. E-2, Firewood Administration and Utilization, (page 4-15).

ISSUE 23 - REFORESTATION

How much and what kind of reforestation is appropriate?

Resolved by the timber practices, standards, and guidelines in Management Areas A, B, and C.

TIMBER

23a

How should the backlog of previously cutover and unsuccessionally reforested areas be reforested?

23b

Should harvesting be deferred on areas where successful regeneration cannot be assured until technology can assure successful regeneration?

Resolved by Forest Management Guideline No. E-3, Reforestation, (Page 4-15).

ISSUE 24 - FIREWOOD CUTTING AND CONTROL

Should permits be required for free-use firewood cutting and what controls should be established?

Resolved by Forest Management Guideline No. E-2, Firewood Administration and Utilization (page 4-15).

WATER

ISSUE 25 - WATERSHED PROTECTION

25a

What coordination is necessary between water and other resources to protect watershed values and water quality?

Resolved by Forest Management Guidelines No. F-1, Erosion Control (page 4-17), and No. G-3, Standards for Rehabilitation (page 4-32).

25b

What watershed restoration is necessary to restore watersheds to acceptable levels?

Resolved by Forest Management Guideline No. F-1, Erosion Control (page 4-17).

How can we obtain more localized scientific data, as needed, to predict watershed impacts from other uses?

Resolved by monitoring and research needs discussed in Chapter V of the Forest Plan.

MINERALS

ISSUE 26 - AMOUNT OF MINERAL EXPLORATION AND DEVELOPMENT

26a

How much mineral exploration and development should be allowed?

The Forest Service does not have jurisdiction over the mineral resources of the Forest, but does exercise control over the surface activities. Forest Management Guideline Nos. G-1, Standards for Seismic Exploration (page 4-18), and G-2, Standards for Oil and Gas Leasing, Exploration Drilling, Field Development and Production (page 4-24).

How can the Forest reduce time required for issuing prospecting permits and recommendations on lease applications?

Resolved by Forest Management Guideline Nos. G-1, Standards for Seismic Exploration (page 4-18), and G-2, Standards for Oil and Gas Leasing, Exploration Drilling, Field Development and Production (page 4-24).

26b

What surface values or uses should be withdrawn from mineral entry?

Resolved by Forest Management Guideline No. No. G-4, Mineral Withdrawal, (page 4-34).

ISSUE 27 - EFFECTS OF MINERAL EXPLORATION AND DEVELOPMENT

27a

How should conflicts between exploration for and development of mineral resources and surface resource values be resolved?

Resolved by Forest Management Guideline Nos. G-1, Standards for Seismic Exploration (page 4-18); and G-2, Standards for Oil and Gas Leasing, Exploration Drilling, Field Development, and Production (4-24).

What controls would be necessary to protect surface resources during exploration for and development of mineral resources?

Resolved by Forest Management Guideline Nos. G-1, Standards for Seismic Exploration (page 4-18); and G-2, Standards for Oil and Gas Leasing, Exploration Drilling, Field Development, and Production (page 4-24).

MINERALS

27b

How should roads for mineral exploration and development be managed?

Resolved by Forest Management Guideline Nos. G-1, Standards for Seismic Exploration (page 4-18), and G-2, Standards for Oil and Gas Leasing, Exploration Drilling, Field Development, and Production (page 4-24).

27c

What social or economic effect on local communities will mineral exploration and development have and are they acceptable?

Resolved through analysis. See Minerals, Chapter IV of the DEIS.

SOILS

ISSUE 28 - EROSION

28a

What measures are necessary to prevent or reduce erosion from: (a) road and trail maintenance; (b) off-road vehicle use; (c) timber sales; (d) oil and gas exploration and development?

Resolved (a) by standards and guidelines for road and trail maintenance practices for all management areas; (b) by management practices in management areas A, B, and C; (c) by Forest Management Guideline Nos. G-1, Standards for Seismic Exploration (page 4-18) and G-2, Standards for Oil and Gas Leasing, Exploration Drilling, Field Development, and Production (page 4-24); and (d) as outlined in Forest Management Guideline No. L-2, Travel Plan (page 4-37).

How can measures to control erosion be completed in a timely and effective manner?

Resolved by the requirement to develop and update Forest handbooks or Forest supplements on watershed management and erosion control, Forest Management Guideline No. F-1, Erosion Control, (page 4-17).

FACILITIES

ISSUE 29 - ACCESS TO THE NATIONAL FOREST

29a

What is adequate access to and within the National Forest?

29b

Where roads or trails are needed for adequate access, what uses or activities will these facilities support?

29c

What constraints or limitations will other resource needs have on providing access?

Should access be provided only for certain specific uses on designated roads and trails?

Will be resolved as outlined in Forest Management Guideline No. L-2, Travel Plan (page 4-37).

ISSUE 30 - ROAD MAINTENANCE AND SIGNING

30a

What roads should be maintained and to what extent?

Resolved road management practices for each for each management area.

To what extent and for what purpose should Forest roads be signed?

Resolved by Forest Management Guideline No. L-1, Signing (page 4-37).

30b

Where and when are road closures appropriate?

Will be resolved as outlined in Forest Management Guideline No. L-2, Travel Plan (page 4-37).

30c

How can road closures be adequately enforced?

Will be resolved as outlined in Forest Management Guideline No. L-2, Travel Plan (page 4-37).

30d

What are the practical and economic limits on road maintenance based on physical features, use, and safety?

Resolved through road management practices contained in the management area prescriptions.

PROTECTION

ISSUE 31 - PRESCRIBED BURNING

31a

How much, if any, prescribed burning should be planned?

Resolved by the management area prescriptions. About 3,036 acres of prescribed fire are planned annually, by 2030.

Should fire management areas be developed in which fire would be allowed to play a more natural role in that area?

A Level III Fire Management Plan will be prepared in support of the selected alternative. This plan will identify areas where prescribed fire by planned and unplanned ignitions can be cost effective as well as preattack for areas of high hazard fuels.

31b

Should fire be permitted to burn in the wilderness and, if so, under what conditions and with what controls?

A Fire Management Plan for the Scapegoat Wilderness/Danaher portion of the Bob Marshall Wilderness was approved in July 1981. A Fire Management Plan for the remainder of the Bob Marshall/Great Bear is scheduled to be completed by 1985.

ISSUE 32 - INSECT DISEASE AND CONTROL

32a

To what extent and in what manner should insect and disease control be carried out?

Resolved by insect and disease practices included for each management area.

Should timber harvesting be accelerated in old growth lodgepole pine to reduce anticipated insect losses?

Resolved through Forest Management Guideline No. P-1, Insect and Disease (page 4-37).

RECREATION

MANAGEMENT CONCERN 1 - CULTURAL RESOURCE MANAGEMENT

How can the Forest carry out identification, protection, interpretation, and management of cultural resources?

Resolved by Forest Management Guideline No. A-7, Cultural Resource Management, (page 4-8).

MANAGEMENT CONCERN 2 - SPECIAL INTEREST SITES

What is the best way to provide special management protection to special interest sites?

Resolved by Forest Management Guideline No. A-6, Special Interest Areas (page 4-8).

LANDS

MANAGEMENT CONCERN 3 - RESEARCH NATURAL AREAS

How can the Forest identify candidate research natural areas containing specific grassland, shrub, and forest habitat types and aquatic ecosystems to meet regional targets?

Resolved by Forest Management Guideline No. No. N-1, Research Natural Areas, (page 4-16).

MANAGEMENT CONCERN 4 - LAND OWNERSHIP ADJUSTMENT

What landownership adjustment would support resource management goals and where should the Forest place its priorities in an adjustment program?

Resolved by Forest Management Guideline No. J-1, Land Ownership Adjustment, (page 4-36) (see Appendix B).

HUMAN AND COMMUNITY DEVELOPMENT

MANAGEMENT CONCERN 5 - NATIVE AMERICAN RIGHTS

5a

How do the rights accorded to the Blackfeet Indian Tribe in the agreement ratified by Congress in 1896 affect management of National Forest land covered in that agreement?

How does the American Indian Religious Freedom Act (AIRFA) affect management of National Forest land, especially in the Rocky Mountain District?

Resolved by Forest Management Guideline Nos.H-1, Native American Claims, and H-2, Native American Rights (page 4-35).

5b

How does the Native American Intake Program affect administration of National Forest land?

Answered by Forest Management Guideline No. H-2, Native American Rights, (page 4-35).

ECONOMICS

MANAGEMENT CONCERN 6 - ECONOMIC EFFICIENCY

Consider the need to provide goods and services efficiently.

Resolved by selecting, through quantitative analysis, the most cost efficient mix of prescriptions which meets objectives for each alternative of the Forest Plan.

ENERGY CONSERVATION

MANAGEMENT CONCERN 7 - ENERGY CONSERVATION

How can the Forest help achieve the national need for energy self-sufficiency through conservation of renewable and non-renewable energy resources?

Resolved by Forest Management Guideline No. G-5, Energy Conservation (page 4-34).

FOREST PLAN

CHAPTER III ANALYSIS OF THE MANAGEMENT SITUATION

Overview

This summary has been prepared in response to the provisions of Part 219.5 of Section 6 of the National Forest Management Act regulations, which direct an analysis to determine the capability of the Forest to supply outputs and uses, and projected demands for the outputs or uses over time.

Information presented in this summary has been taken from the Forest Plan Data Base, resource and use assessments, FORPLAN model production runs, research publications, and the review of planning and land use policies of other Federal agencies, State and local governments, and Indian tribes. Opportunities, problems, and needs which surfaced in this planning effort are also summarized.

Each resource element (e.g. range, recreation, timber) begins with a discussion of the Current Management situation on the Lewis and Clark National Forest.

Next, the potential of the Forest to produce each resource without regard to legal and administrative constraints except sustained yield allocation for timber is analyzed. This is called Maximum Production Potential. The maximum production potential for all resources cannot be met simultaneously because of the interaction and competitive relationship among resources.

Then, the Projected Use Level for output and uses is estimated and compared to the projected supply under current Forest management direction.

Next, the supply potential of the Proposed Forest Plan is discussed. It includes an evaluation of the Forest's potential for meeting the Recommended RPA Program.

Last, the relationships a resource has with other resources is discussed.

RECREATION

DEVELOPED RECREATION

Current Management (1982-2030)

Current available developed recreation opportunity is 198,500 Recreation Visitor Days (RVDs) on 31 sites occupying 195 acres. Recreation opportunity is based on PAOT capacity, season of use, and a 40 percent use factor. In addition, the private sector can provide 56,100 RVDs in downhill skiing and 33,500 RVDs in resort use.

Under the current management direction, developed recreation in the public sector would stay at the current level; no additional facilities are scheduled to be built. The private sector would be encouraged to expand their role in providing developed recreation. Current management provides for maintaining a mix of campgrounds at the full service level and the reduced service level.

Maximum Production Potential (1982-2030)

The maximum available developed recreation opportunity would increase from 198,500 RVDs in 1981 to 230,114 RVDs in 2030 (Table 3.1). It would be attained by expanding one existing site and developing 7 new recreation sites on 36 acres based on the NFRS inventory. Additional developed recreation sites may be available, but to identify them the Forest would have to be reinventoried. The Forest's ability to reach the maximum available developed recreation opportunity is limited by demand for additional developed recreation and its cost. The length of the managed season was not increased, but held at the present season.

Projected Use Level (1980-2030)

The current developed recreation use in 1980 was 159,000 RVDs. This is projected to increase to 264,600 RVDs in 2030 (see Table 3.1). Use will increase directly proportional to population growth. No adjustments were made to meet possible changing developed recreation needs, such as an increase in winter camping.

The demand will exceed the Forest ability to provide developed recreation under the current management direction in about 2000. Season of use can be expanded to meet some of this demand.

RECREATION

DEVELOPED RECREATION

Proposed Forest Plan (1982-2030)

Relationship with Other Elements

The Proposed Forest Plan increases developed recreation by 31,614 RVDs. This is 100 percent of the capacity of currently inventoried developed recreation sites.

As shown in Tables 3.1, developed recreation capacity will not meet the projected demand or overcrowding of many sites will result. However, the demand is not projected to exceed the capacity until the year 2000. This will enable the Forest to continue to evaluate the projected demand and to inventory possible additional sites for development. The Proposed Forest Plan does not meet the RPA Recommended Program. The RPA Recommended Program is almost twice the projected demand. Table 3.1 shows the developed recreation opportunity for the Proposed Forest Plan.

The Proposed Forest Plan will develop all presently inventoried campground sites by the year 2030. Additional sites will need to be identified prior to this time. Campground development will have little impact on other elements because of small acreages involved. The proposed sites are adjacent to existing roads; no additional roads will be necessary.

Table 3.1
DEVELOPED RECREATION
(Average Annual RVDs)

	1982- 1990	1991- 2000	2001- 2010	2011- 2020	2021- 2030
Current Management	198,500	198,500	198,500	198,500	198,500
Maximum Opportunity	230,114	230,114	230,114	230,114	230,114
Projected Use Level	159,700	168,900	189,000	211,300	264,600
Forest Plan Opportunity	198,500	203,500	217,288	226,682	230,114

RECREATION

DISPERSED RECREATION

Current Management (1982-2030)

Current available dispersed recreation opportunity is 2,369,000 RVDs on the Forest. This includes 52,000 RVDs in a primitive recreation setting, 218,000 RVDs in a semi-primitive recreation setting, 1,905,000 RVDs in a roaded natural appearing recreation setting, and 194,000 RVDs in a rural recreation setting. Recreation opportunity is the projected capacity of an area to provide dispersed recreation based on the area's recreation setting.

Under the current management direction, the available dispersed recreation opportunity would increase from 2,353,000 RVDs in 1981 to 2,558,000 RVDs in 2030 (see Table 3.2). Current management provides for maintaining existing trails and roads, and accessing some semi-primitive recreation areas.

Maximum Production Potential (1982-2030)

The maximum dispersed recreation opportunity available would increase from 2,353,000 in 1980 to 2,931,000 RVDs in 2030 (see Table 3.2). It is attained by accessing undeveloped lands. This causes a change in the recreation setting from semi-primitive to roaded natural appearing or rural. These settings provide more dispersed recreation opportunity. Maximum available dispersed recreation opportunity is limited by demand, although there might be some need to control the recreation setting.

Projected Use Level (1980-2030)

The current use in 1980 was estimated to be 622,200 RVDs. This is projected to increase to 1,477,000 by 2030 (see Table 3.2). Use will increase in direct proportion to population growth. The demand will be far below the available dispersed recreation opportunity. However, there will be a conflict between different recreational users.

Proposed Forest Plan (1982-2030)

The Proposed Forest Plan will provide 2,633,000 RVD's of dispersed recreation opportunity by 2030. (see Table 3.2) This will exceed the projected use levels and the RPA program.

RECREATION

DISPERSED RECREATION

Relationship with Other Elements

The Proposed Forest Plan allocates lands to semi-primitive motorized and nonmotorized recreation settings to provide for these recreation needs. These areas are scattered across the Forest and at least one area of these settings exists in each mountain range to provide a wide distribution of recreation opportunity. These same allocations provide some of the needs for old-growth wildlife habitat, wildlife, and snag dependent species. Road development associated with timber management will provide additional roaded natural appearing recreation settings and opportunities.

Table 3.2
DISPERSED RECREATION
(Average Annual RVDs)

	1982- 1990	1991- 2000	2001- 2010	2011- 2020	2021- 2030
CURRENT MANAGEMENT	2,393,000	2,433,000	2,475,000	2,516,000	2,558,000
MAXIMUM OPPORTUNITY	2,487,000	2,550,000	2,638,000	2,811,000	2,931,000
PROJECTED USE LEVEL	622,200	700,000	894,000	1,283,000	1,477,000
FOREST PLAN OPPORTUNITY	2,391,000	2,425,000	2,495,000	2,554,000	2,633,000

VISUAL RESOURCES

Current Management (1982-2030)

The Forest does not have an existing approved visual quality objective (VQO). However, an implied VQO is as follows:

- Preservation - Classified Wilderness
- Retention - RARE II Recommended Wilderness
 - RARE II Further Planning and MWSA areas
 - Campgrounds and Ski Areas

Partial Retention - major roads and trails (includes rural and semi-primitive recreation settings) as defined in Forest Supervisor's memo of Oct. 16, 1980, 1920, Classification Criteria for Major Roads

Modification - All remaining acres

Maximum Production Potential (1982-2030)

In managing for maximum timber or range, the entire timber land base must be developed and intensively managed. In addition to the commercial forest land, much of the noncommercial forest and non-forest lands would take a modification VQO for spatial cohesiveness.

- Preservation - existing
- Retention - RARE II Recommended Wilderness
 - Deep Creek/Reservoir North RARE II Further Planning
 - Campgrounds and Ski Areas

Partial Retention - Rural recreation settings with timber harvest

Modification - all other lands

Proposed Forest Plan (1982-2030)

The Proposed Forest Plan will manage the visual resource as described under current management.

Relationship with Other Elements

The Proposed Forest Plan allocates a visual quality objective to coincide with the recreation setting and visual sensitivity. Areas with high visual sensitivity and timber harvest (Management Area A) will result in the loss of some volume and increase cost associated with timber harvest to maintain the visual quality objective.

CULTURAL RESOURCES

CULTURAL RESOURCES

The focus has been inventories on a project-by-project basis prior to design and implementation of impacting activities and to cooperate with the Blackfeet Indian Tribe to identify possible sacred sites. Current Direction is to continue this approach. This direction will continue in the Forest Plan.

WILDERNESS

Current Management (1982-2030)

The Forest administers parts of two units of the National Wilderness Preservation System; the Bob Marshall and the Scapegoat. These areas total 385,046 acres. Through the RARE II process, an additional 63,304 acres (Renshaw and Silver King-Falls Creek) have been recommended for wilderness classification. Another 41,838 acres (Deep Creek-Reservoir North) were allocated for further planning. Public Law 95-150; MWSA (Montana Wilderness Study Act) directs that 188,885 acres in the Big Snowy Mountains and the Middle Fork of the Judith be studied for possible inclusion into the wilderness system.

National Forest System Wilderness is managed under Wilderness Act of 1964, the Code of Federal Regulations - Title 35 Part 293 - Wilderness-Primitive Areas, and FSM 2350. RARE II recommended wilderness areas are managed to protect their wilderness character until Congress makes a decision on their classification.

The Forest is continuing to gather data on the oil and gas potential of the Deep Creek-Reservoir North RARE II further planning area. Once data on oil and gas potential are available, a recommendation on wilderness classification will be made through amendment or revision to the Forest Plan in accordance with Section 219.11(f) of NFMA regulations.

Maximum Production Potential (1982-2030)

The maximum area of the Forest which could be classified as wilderness is 680,073 acres. This includes 385,046 acres of existing wilderness, 63,304 acres recommended for wilderness, 189,885 acres in MWSA areas and 41,838 which will be studied in the future (see Table 3.3).

Table 3.3
WILDERNESS OPPORTUNITY

Classified Wilderness	385,046 Acres
Recommended Wilderness	63,304 Acres
Further Planning	41,838 Acres
MWSA Areas	<u>189,885 Acres</u>
Total	680,073 Acres

WILDERNESS

Projected Use Level (1980-2030)

The current use in 1980 of the Wilderness was estimated to be 87,000 RVDs. This is projected to increase to 163,000 RVDs in 2030 (see Table 3.4). The classified and recommended wilderness provide 52,013 RVDs of primitive recreation yearly. Use will increase in direct proportion to population growth.

The demand will be far above the capability of the wilderness to supply a primitive recreation experience level under the Recreation Opportunity Spectrum concept. Use above the primitive level will be provided at a semi-primitive, non-motorized recreation experience level.

Table 3.4
PROJECTED WILDERNESS USE LEVEL

	1980	1981- 1990	1991- 2000	2001- 2010	2021- 2020	2021- 2030
Average Annual RVDS	87,000	94,000	111,000	128,000	145,000	163,000

Proposed Forest Plan (1982-2030)

The Proposed Forest Plan recommends that the MWSA Areas be managed as non-wilderness (see Management Areas B and G for management direction if the President and Congress follow Forest Service recommendations). The Forest will continue to gather data on the oil and gas potential of the Deep Creek Reservoir North RARE II further planning area. The Proposed Forest Plan will provide 52,013 RVDs of primitive recreation.

Relationship with Other Elements

Existing classified wilderness and proposed wilderness provide the opportunity for a primitive recreation experience. These areas also provide habitat for game, nongame, and threatened and endangered wildlife species and contribute to the maintenance of long-term plant and animal diversity.

WILDLIFE AND FISH

THREATENED AND ENDANGERED SPECIES

Current Management Grizzly Bear (Threatened)

The entire 774,974 acre Rocky Mountain District is considered to be occupied grizzly bear habitat. Of this total, 475,836 acres have been identified as essential habitat by the Forest Service. The current population estimate for grizzly bear on the Forest is 100 animals. The U.S. Fish and Wildlife Service recovery goal for grizzly bear on the Forest is 81 bears.

Habitat improvement projects have been accomplished for grizzly bear during the last three years, including protection fencing and prescribed burning. An average of 300 acre equivalents are being treated for grizzly bear habitat improvement annually under the current program.

Gray Wolf (Endangered)

Observations of gray wolves are occasionally reported, primarily from the Sun River, north on the Rocky Mountain District. These animals appear to be wolves dispersing southward from Alberta, Canada. No pack activity has been documented in recent years. Much of the Rocky Mountain District provides suitable habitat to support wolves. Recent population estimates are from 4 to 8 wolves in the general area. The recovery goal for the gray wolf is 10 animals.

Bald Eagle (Endangered)

Bald eagles are commonly observed on various portions of the Forest during spring and fall migrations. No active bald eagle nests are known on the Forest, although a small amount of suitable nesting habitat does occur.

Peregrine Falcon (Endangered)

Peregrine falcon are rarely observed on or near the Forest during seasonal migrations. No known active or historic nesting sites occur on the Forest. A considerable amount of apparently suitable nesting habitat for peregrine falcon has been identified, especially on the Rocky Mountain District.

Maximum Habitat Potential (1982-2030)

The maximum potential improvement program for grizzly bear habitat would average approximately 3,200 acre equivalents each year. The ability to achieve this level of program is limited by adequate financing and manpower. Physical limitations could also affect a maximum program, especially prescribing burning.

Current Management (1982-2030)

The Lewis and Clark National Forest provides yearlong or seasonal habitat for 290 species of wildlife and fish. These include: **Table 3.5**

NUMBER OF VERTEBRATE SPECIES

	TOTAL SPECIES	GAME SPECIES
Mammals	72	10
Birds	190	24
Reptiles	7	0
Amphibians	8	0
Fishes	13	7
Total	290	41

Estimated 1980 populations of major big game species on the Lewis and Clark National Forest are:

Elk	8,500
Mule Deer	30,000
Whitetail Deer	4,500
Bighorn Sheep	1,000
Mountain Goat	500

These figures represent post hunting season population estimates. In addition, populations of black bear, moose, and antelope inhabit portions of the Forest. The Forest has 1,600 miles of streams of which 535 miles are considered to be fishable.

Overall, the total winter-spring carrying capacity of winter-spring range (all landowners) is the limiting factor on elk populations on the Forest. Summer-fall capacity is not a limiting factor. Forest lands are estimated to supply 50 percent of the forage during the winter-spring period (December-May) for elk which use the Forest during an average year. However, during severe winters, the amount of forage available for elk on the Forest decreases significantly forcing more of the total winter-spring use onto adjacent lands. Elk population management objectives on all hunting districts on the Forest are established based on the overall winter-spring carrying capacity of all landowners.

WILDLIFE AND FISH

BIG GAME, FISH, AND OTHER WILDLIFE SPECIES

Maximum Elk Potential (1982-2030)

The average wildlife habitat improvement program during the past 5 years has been approximately 1,500 acre equivalents annually.

The maximum potential for elk is 12,500 animals based on the current elk population plus additional National Forest carrying capacity during an average winter. No livestock grazing would be permitted on National Forest big game winter range. Little or no timber harvest would be programmed on elk winter range. Habitat improvement would be scheduled to enhance forage supplies. In arriving at the maximum potential, there was no consideration of suitability factors such as forage preference, human activity levels, and interspecific competition with other big game animals, which may affect elk use of an area. In order to reach the maximum elk potential, additional winter range capacity would have to be available on adjacent Federal, State, and private lands during a severe winter.

Projected Use Level (1980-2030)

The desire to hunt, fish, and pursue a wide base of outdoor recreation activities in Montana is well demonstrated by the relatively high rate of participation by State residents and visitors. Nearly 3 out of 5 Montanans in the license-required group take part in one or more fishing or hunting activities. Another 170,000 visitors purchase out-of-state licenses. Nonconsumptive wildlife use such as photography, nature study, and bird watching, is rapidly increasing.

Proposed Forest Plan (1982-2030)

The Proposed Forest Plan sets management guidelines on threatened and endangered species, wildlife coordination, fish habitat, riparian zone management, and wetland management. It also establishes management prescriptions, standards, and guidelines to guide wildlife habitat management.

The Plan also provides for habitat for viable populations of existing indigenous wildlife species. It maintains habitat for elk at slightly less than the current estimated level.

The Proposed Forest Plan provides for about 3,200 acre equivalents of wildlife habitat improvement yearly (Table 3.6). This is less than the RPA Recommended Program (average of 6,000 acre equivalents yearly). The Proposed Forest Plan does not meet the State's goal for elk as disaggregated from the "1978 Montana Statewide Comprehensive Outdoor Recreation Management Plan for the Protection, Perpetuation, and Use of Montana's Wildlife, Fish,

WILDLIFE AND FISH

BIG GAME, FISH, AND OTHER WILDLIFE SPECIES

and Recreation Resources," Montana Department of Fish and Game, Merohl, 1978, Helena, Montana. The State goal for elk population in the year 2000 is 13,560 animals.

Table 3.7 shows estimated population levels for grizzly bear, wolf, elk, and catchable trout.

Table 3.6
FOREST PLAN WILDLIFE HABITAT IMPROVEMENT

	1982- 1990	1991- 2000	2001- 2010	2011- 2020	2021- 2030
Total Acre Equivalents	3,246	3,334	3,229	3,207	3,150
T & E Species	(425)	(425)	(425)	(425)	(425)
Fish	(60)	(60)	(60)	(60)	(60)
Other	(2,761)	(2,849)	(2,744)	(2,722)	(2,665)

Table 3.7
FOREST PLAN WILDLIFE POPULATIONS

	1982- 1990	1991- 2000	2001- 2010	2011- 2020	2021- 2030
Grizzly Bear	100	100	100	100	100
Wolf	6	6	6	6	6
Elk	8500	8500	8500	8500	8400
Catchable Trout (thousand)	202	200	198	194	190

Management Indicator Species

The regulations developed under the National Forest Management Act discuss which species should be considered as management indicator species. They include those species identified as endangered or threatened on Federal and State lists for the planning area. The peregrine falcon and gray wolf are classified as endangered under both Federal and State law. The bald eagle is listed as endangered on the Federal list, but is not included on the State list. The grizzly bear is listed as threatened at the Federal level, but is managed as a big game animal under Montana regulation. The population status and habitat conditions for each of these species is currently being monitored on the Forest by the U.S. Fish and Wildlife Service, Forest Service, and Montana Department of Fish, Wildlife, and Parks.

WILDLIFE AND FISH

BIG GAME, FISH, AND OTHER WILDLIFE SPECIES

The NFMA regulations also include as management indicator species, species commonly hunted, fished, or trapped. On the Lewis and Clark National Forest that category would include eight big game species (elk, mule deer, whitetail deer, black bear, antelope, bighorn sheep, mountain goat, and mountain lion), three species of mountain grouse (blue, ruffed, and spruce), three species of trout (cutthroat, rainbow, and brook), and three species commonly trapped for their fur (beaver, coyote, and bobcat). Population parameters, harvest levels, and general habitat conditions are currently monitored for all of these species by the Montana Department of Fish, Wildlife, and Parks.

Management indicator species may also be selected to indicate special habitat needs that may be influenced significantly by planned management programs or to indicate effects of management activities on other species of a major biological community. These species are:

SPECIES	HABITAT SITUATION
Goshawk	Old Growth Forest
Golden-Crowned Kinglet	Mature Coniferous Forest
Hairy Woodpecker	Tree Cavity (Doug fir/Ponderosa)
Downy Woodpecker	Tree Cavity (Riparian/Aspen)
Black Backed Three-Toed Woodpecker	Tree Cavity (Mixed Conifer)
Northern Three-Toed Woodpecker	Tree Cavity (Lodgepole Pine)
Mountain Phenacomys	Mountain Grassland
Brewer's Sparrow	Sagebrush Grassland
Meadow Vole	Wet Meadow
Water Pipit	Alpine
Yellow-Bellied Marmot	Talus, Rockland
Beaver	Riparian (Deciduous Tree)
Yellow Warbler	Riparian (Tall Shrub)
Cutthroat Trout	Aquatic (Streams and Lakes)
Brook Trout	Aquatic (Streams)

Relationship with Other Elements

Increases in timber harvest and domestic livestock grazing will cause some decrease in wildlife and fish habitat. Additional timber harvest and grazing in riparian areas could decrease the number of catchable trout through increased sediment production. Additional domestic livestock animal unit months will be derived through range improvements and longer seasons of use on big game winter range, but with a possible decrease in elk numbers since big game winter range is the most limiting factor to increased elk population.

RANGE

Current Management (1982-2030)

The current domestic grazing level is 80,754 animal unit months (AUMs) including waived, private land. This includes the following categories.

<u>Type of Permit</u>	<u>National Forest</u>
Term Permits	67,214 AUMs
Temporary Permits	1,541 AUMs
Livestock Use	3,527 AUMs
TOTAL	72,282 AUMs

Private Land

Waived Private Land	8,427 AUMs
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The majority of this grazing takes place on 391,500 acres of land identified as suitable for grazing on existing allotments. As part of their ranching operation, 244 permittees currently utilize National Forest grazing.

Under the current management direction, grazing can be expected to remain static at 72,282 AUMs. Current management direction provides for no range deterioration caused by domestic livestock, and improved distribution of animals on existing allotments. Improved range management is needed on several range allotments. A higher level of range administration is needed on most allotments.

Maximum Production Potential (1982-2030)

Under maximum production, grazing could increase from the present level of 72,282 AUMs to a high of 122,000 AUMs in the first decade and decreasing to 113,000 AUMs by 2030 (see Table 3.8). The maximum production levels reflect: (1) the highest consumptive use by domestic livestock that can be made on the ground without mechanical damage and/or vegetative damage, and (2) the production which must be left for non-consumptive allocations. This does not account for area juxtaposition and the practicality of domestic livestock using some of this area. A 90,000 AUM potential is more likely closer to the usable maximum production potential.

The increase in forage production during the first decade is attained by harvesting timber to create transitory range, investing in a high level of development for range improvements, establishing new allotments, grazing riparian areas intensively, and a six-fold increase in the Forest budget. The decrease after the first decade is a result of maturing timber stand causing a decrease in transitory range.

RANGE

Projected Use Level (1980-2030)

The demand for grazing on the National Forest will be as great as allocated to domestic livestock use. Use of National Forest AUMs will require reasonable seasons and management requirements as they relate to the livestock industry.

Proposed Forest Plan (1982-2030)

The Proposed Forest Plan provides for a moderate increase in the domestic grazing level (see Table 3.8). This should help meet the demand for red meat production. The Proposed Forest Plan does not meet the RPA Recommended Program assigned to the Forest (90,000 AUMs). To do so would utilize 100 percent of estimated usable maximum production potential. This would create conflict with wildlife. Lower levels of grazing would take advantage of opportunities to increase grazing where these conflicts are minimal.

Relationship with Other Elements

The Proposed Forest Plan schedules an increase in domestic livestock AUMs. Some of this increase will result from increase in grass and forb production following timber harvest. This is a short term increase of about 20 years. Without proper range management, grazing these areas can result in decreased reforestation. Other increases will result from range improvements. Salting, water development, and fencing done for range management will also provide some habitat improvement for wildlife. The areas best suited for increasing domestic livestock AUMs through longer seasons and range improvement are big game winter ranges. Winter range is the limiting factor for the elk population. An increase in domestic livestock grazing on winter ranges will cause a decrease in habitat for big game animals.

Table 3.8
RANGE
(Average Annual AUMS)

	1982- 1990	1991- 2000	2001- 2010	2011- 2020	2021- 2030
Current Management	72,280	72,280	72,280	72,280	72,280
Maximum Potential	90,000	90,000	90,000	90,000	90,000
Forest Plan Opportunity	72,800	73,900	75,900	77,300	79,200

TIMBER

Current Management (1982-2030)

The current timber sales program is 13.0 million board feet per year (85 percent chargeable and 15 percent nonchargeable) on a land base of 554,213 acres of additional available, capable, and suitable Forest lands. An additional 15 million board feet of dead trees is removed as firewood. Over 95 percent of the firewood removal is under free use permits for individual home use, and 5 percent is under paid permit for commercial use. Based on approved timber management plans with revisions to reflect RARE II and other decisions, the potential yield for the Forest is 17.2 million board feet.

Under the current management direction, timber harvest will remain stable, averaging 13 million board feet for the duration of the planning period. Current management direction provides for a low level timber harvest program. About 700 acres will be reforested yearly and 175 acres will be thinned. This will lengthen the time to bring the Forest's commercial forest land under management. Current management maintains the wilderness character of classified wilderness, RARE II recommended wilderness, RARE II further planning areas, and Montana Wilderness Study Act areas, and maintains the visual resource around developed recreation sites, summer homes, highways, and major roads.

Maximum Production Potential (1982-2030)

The maximum timber production potential is 68.3 million board feet per year on 648,049 acres during the planning period (50 years) (see Table 3.9). The maximum timber production potential retains the classified wilderness, RARE II recommended wilderness, and further planning areas. An additional 21.9 million board feet per year is available within these areas.

The maximum production potential is attained by harvesting all possible stands, intensively managing regenerated stands, converting stagnated stands into new stands, planting all non-stocked areas, and a ten-fold increase in budget.

This potential is limited by the Forest's ability to access and market timber, establishment of new reserved land areas, further reduction in the available commercial Forest land base, budget, and the need to protect other resource values. These values include wildlife, especially T&E species, potential campgrounds, visual areas, and semi-primitive recreation areas.

TIMBER

Projected Use Level (1980-2030)

The 1978 East Zone Timber Program Analysis concluded that because the supplies of private timber have been decreasing and the cost of harvesting has risen steadily in relation to National Forest timber costs, the demand for Forest timber should increase within the next five to ten years.

Proposed Forest Plan (1982-2030)

The Proposed Forest Plan provides for a moderate increase in the level of timber harvest. By 2030, the Forest will be harvesting 24 million board feet of timber on 286,042 acres of capable, available, and suitable lands (see Tables 3.9 and 3.10). This level of harvest should help meet the growing demand for wood products and help stabilize timber dependent communities. Timber harvest will increase the opportunity for other resource values, such as grazing, wildlife, and recreation. Timber harvest activities are programmed only in those areas where extensive investment in roads are commensurate with the values to be removed. Table 3.11 shows acres harvested, acres clearcut, and acres of precommercial thinning by decade.

The Proposed Forest Plan emphasizes woodgathering by expanding access, by not burning slash piles in potential woodcutting areas, and developing a public awareness program. The Proposed Forest Plan does not meet the RPA Recommended Program assigned to the Forest (40 million board feet). To do so would require substantial harvest in riparian zones, rural recreation settings, and low productivity, dry sites in the Jefferson Division. It would also require large investments in precommercial thinning.

Relationship with Other Elements

Vegetative manipulation through timber harvest will increase the amount of early successional vegetation providing additional habitat of grass and forb wildlife and domestic livestock. Roads constructed for timber harvest will provide increased access for recreation, administration, and protection. Increased roading will change some present semi-primitive recreation settings to roaded natural appearing settings. Maintaining primitive and semi-primitive recreation settings, visual quality objectives, and wildlife habitat provided for in the Proposed Forest Plan reduces the regulated timber harvest volume from maximum production volumes.

Table 3.9
TIMBER
(Average Million Board Feet Per Year)

	1982- 1990	1991- 2000	2001- 2010	2011- 2020	2021- 2030
Current Management	13.0	13.0	13.0	13.0	13.0
Maximum Opportunity	24.0	31.2	40.5	52.7	68.3
Forest Plan Opportunity	14.0	17.0	20.0	23.0	24.0

Table 3.10
LANDS CAPABLE, AVAILABLE, AND SUITABLE FOR TIMBER HARVEST

Lewis and Clark National Forest (Total Acres)	1,843,395
Lands Not Capable for Timber Production	
Water	4,655
Non-Forested Areas	482,205
Non-Productive Areas	491,475
Total Capable Acres	865,060
Lands Not Available for Timber Production	
Productive Reserved	
Wilderness	176,872
Experimental Forest	8,273
Productive Deferred	
RARE II Recommended Wilderness	17,385
RARE II Further Study	4,227
Total Capable and Available Acres	658,303
Lands Not Suitable for Timber Production	372,261
Total Capable, Available, and Suitable for Timber Harvest	286,042

Table 3.11
TIMBER
ANNUAL TIMBER HARVEST PROGRAM

	1982- 1990	1991- 2000	2001- 2010	2011- 2020	2021- 2030
Total Volume Harvest	14.0	17.0	20.0	23.0	24.0
Acres Harvest	1581	1660	1622	2450	2304
Acres Clearcut	794	833	814	1230	1157
Precommercial Thin Acres	126	133	130	196	184

WATER

Current Management (1982-2030)

Average annual water yield from National Forest land is estimated at 1,700,000 acre feet of which an estimated 1,698,000 acre feet meet minimum standards according to state standards for "Best Management Practices."

Under current management direction, water meeting water quality standards would increase to the average water production of 1,700,000 acre feet by the year 2000, as RPA requires elimination of any restoration backlog by that time. Average water yield (all meeting minimum standards) would continue at that level, as increases due to sustained-yield timber harvest would be offset by regeneration of previously harvested areas. No activity would be permitted to degrade water quality by law.

Water from the National Forest is generally used as fish habitat with small consumptive uses for livestock, domestic use, and two municipal watersheds. Most available water is used for irrigation in the summer. All water is used for electricity generation downstream on the Missouri River and eventually, navigation.

Maximum Production Potential (1982-2030)

The maximum production potential is dependent upon water yield increase due to timber harvest. The potential average water yield is 1,710,000 acre feet per year for the first decade and could increase to 1,720,000 acre feet per year (average) in 5 decades. No other activities are expected to increase water yield significantly.

Projected Use Level (1980-2030)

The passage of a major state water development plan by the 1981 Montana legislature indicates that the need for water will increase, mostly from industrial development, and irrigation, including additional storage or reservoir capacity.

Proposed Forest Plan (1982-2030)

The Proposed Forest Plan minimizes adverse environmental impacts and maintains environmental quality as provided for in CFR 219.13, provides for water meeting quality standards, and eliminates the restoration backlog needed so that all water meets these standards (see Table 3.9).

WATER

Table 3.12
FOREST PLAN AVERAGE INCREASE IN WATER YIELD

	1982- 1990	1991- 2000	2001- 2010	2011- 2020	2021- 2030
Thousand Acre/ Feet Per Year	1,698	1,699	1,700	1,705	1,710

Relationship with Other Elements

Water yield meeting quality standards under the Proposed Forest Plan will have an insignificant increase from the existing situation.

MINERALS

OIL AND GAS

Current Management (1982-2030)

In September 1979, an Environmental Assessment was completed on oil and gas leasing in the Highwood and Crazy Mountains. Under this environmental assessment, 23,704 acres in the Highwood Mountains and approximately 25,000 acres in the Crazy Mountains were leased. In January 1981, an Environmental Assessment was completed on oil and gas leasing in Deep Creek-Reservoir North RARE II Further Planning Area. Under this assessment, the Forest has recommended 43,000 acres be leased (34,440 acres with no-surface occupancy). This action is under legal review. In February of 1981, the Forest completed an Environmental Assessment on Oil and Gas Leasing on Nonwilderness Lands. Under this environmental assessment, the Forest has completed recommendations to the Bureau of Land Management for lease issuance on 180 leases covering approximately 274,000 acres of the Rocky Mountain Division, and 37 leases covering approximately 1,000 acres in the Jefferson Division.

Over the next several years companies will be acquiring and consolidating lease holdings and conducting extensive seismic work to delineate individual targets. The Forest has had one application for permit to drill. The request was to re-enter an existing shut-in gas well. The re-entry of the well has been completed and it was found capable of production. This well will go into production following pipeline construction.

The Bob Marshall, Scapegoat, and Great Bear Wilderness Complex were withdrawn from oil and gas leasing on June 1, 1981. This withdrawal was revoked on January 29, 1982. Congress is considering several legislative proposals dealing with minerals, leaseable minerals in wilderness, and with oil and gas leasing in the Bob Marshall Complex.

Projected Use Level (1980-2030)

Natural gas consumption in North America has grown from 9 percent of the total energy consumed in 1950 to 30 percent in 1975. In the U.S., over 40 million households and 3 million businesses rely on natural gas.

Proposed Forest Plan (1982-2030)

The Proposed Forest Plan will continue to recommend mineral leasing, exploration permits, and other mineral activities as outlined by the Management Guidelines for Oil and Gas in Section IV.

MINERALS

OIL AND GAS

Relationship with Other Elements

Mineral development is governed by mining and mineral leasing laws. Because mineral activities are generated by the private sector, the Forest can only project possible activity. Development for natural gas and other minerals is likely to occur on the Forest. If it does occur, increase in roading will be controlled through road management to maintain the recreation setting. Coordination with other resource elements will be needed. Wildlife and semi-primitive recreation settings will be impacted the most.

MINERALS

METALLICS AND OTHER MINERALS

Current Management (1982-2030)

The Jefferson Division of the Forest has a long history of silver, zinc, lead, sapphire, and gold production. Production has been mostly from small mines which produced intermittently up to the 1950's.

There is a moderate level of exploration activity on the Forest. This includes geologic mapping, sampling, and a number of drilling projects every year. Development type work is taking place in the Barker-Hughsville area on patented claims; some development work is taking place on unpatented claims. At present the Forest receives approximately 12-15 operating plans per year, mostly from small miners. Although this would generally increase in the future, production would not likely increase significantly during the planning period. Production would probably come from the Barker-Hughsville properties.

Projected Use Level (1980-2030)

For most mineral commodities, except the common varieties, the market is worldwide. As a result, the mineral outputs provided by the Forest will not affect the price. However, quantity demanded is influenced by price.

Proposed Forest Plan (1982-2030)

The Forest will continue to deal with mineral activities under the Mining and Mineral Leasing Laws and Federal regulations dealing with these activities.

HUMAN AND COMMUNITY DEVELOPMENT

Current Management (1982-2030)

The Lewis and Clark National Forest is involved in two categories of Human Resource Programs. Sponsored programs include Young Adult Conservation Corps (YACC), Youth Conservation Corps (YCC), and the Senior Community Employment Program (SCEP). Sponsored programs are those programs for which funding is appropriated by Congress and allocated either directly or indirectly to the Forest Service. Hosted programs include enrollees under the Comprehensive Employment and Training Act of 1973 (CETA) and volunteers in National Forest.

Proposed Forest Plan (1982-2030)

The Forest will continue to participate in sponsored programs as funded by Congress. The Forest will increase its involvement with host programs.

SOILS

Current Management (1982-2030)

A landtype survey has been completed on the Lewis and Clark National Forest. The landtype survey is a soil survey using selected properties of landforms and climax vegetation (habitat types) to characterize mapping units.

An estimated 2,000 acres are in need of restoration to control accelerated erosion. This restoration is occurring as funds become available.

The current management direction is to inventory all restoration needs by October 1, 1982, and complete all restoration by the year 2000 to control all man-caused erosion presently contributing to water pollution. This means that an average of about 100 acres per year would be treated to control erosion. No new areas of management-caused erosion are expected because of the implementation of best management practices.

Proposed Forest Plan (1982-2030)

The Forest will continue to inventory all restoration needs by October 1, 1982, and complete all restoration by the year 2000.

Relationship with Other Elements

The Proposed Forest Plan will have an 8 percent increase in sediment production over projected current management. This sediment results from increased road construction needed to achieve higher timber outputs.

LANDS

Current Management (1982-2030)

On the Lewis and Clark National Forest, the land's function is divided into five subparts: land adjustment; land uses; rights-of-way; land status; and land line location.

Land Adjustment

In 1967, a land adjustment plan was prepared for the Forest. Revisions were started and several were made from time to time, but were not completed. Land adjustment actions stopped because of financing, priority, and need for a more usable plan.

Land Use

Request for land uses are dealt with on a project-by-project basis. Over 380 special use permits have been issued on the Forest. Two utility corridors cross the Forest.

Right-of-Way

The Forest is continually obtaining necessary rights-of-way to manage Forest resources.

Land Status

The maintenance of land status is an ongoing program at the Regional level. The Forest reviews and supplies information to this program.

Land Line Location

The program consists of locating and monumenting National Forest property boundary corners as well as marking and posting property line boundaries. Currently, the Forest, in cooperation with the Bureau of Land Management, remonuments about 70 corners and posts annually, an average of 13 miles of boundary.

Projected Use Level (1980-2030)

The Forest Plan identified specific land exchange (Appendix B) and right-of-way needs (Appendix C) which are shown on the Geographic Unit Maps. Other programs will continue as outlined above.

FACILITIES

ROADS AND TRAILS

Current Management (1982-2030)

The current inventoried road system on the Forest consists of 155 miles of arterial roads, 643 miles of collector roads, and 597 miles of local roads. There are an estimated 600 miles of primitive roads which are not on the inventory. The current trails system on the Forest consists of 1,677 miles. There are six National Recreation Trails. The Continental Divide Scenic Trail traverses the Rocky Mountain District. An Advisory Council is currently studying potential routes for this trail (see Appendix D).

Under the current management direction, the arterial-collector road system would increase 3 to 5 miles per year. Timber support local roads, with the timber harvest at 12.5 million board feet per year, will increase 11 to 13 miles per year. There will be a slight decrease in the miles of trails, as presently unroaded areas become roaded.

Maximum Access Potential (1982-2030)

Complete access of Forest lands would require 1,110 miles of roads in the arterial-collector road system. Maximum timber production of 68.3 million board feet would require from 60 to 150 miles per year of timber support local roads. Much of the trail system, outside of wilderness, would be replaced by roads. Maximum access is limited by funding in Forest Road and Trails (FR&T) budget and the Forest's ability to acquire rights-of-way through private lands.

Proposed Forest Plan (1982-2030)

The Forest provides for a transportation system that is integrated to serve resource needs (see Table 3.13). Roads are kept to the minimum number and size needed to support resource management.

Table 3.13
ROADS AND TRAILS CONSTRUCTED/RECONSTRUCTED
(Average Annual Miles)

	1982- 1990	1991- 2000	2001- 2010	2011- 2020	2021- 2030
Arterial/Collector	4.5	5.0	2.2	5.6	4.8
Local Roads	14.1	12.3	11.3	17.5	14.6
Trails	2	2	2	2	2

Relationship with Other Elements

The relationship of roads to other resources is primarily discussed under the other elements.

Current Management

The Forest is currently operating under the 1972 Fire Plan. However, funding has not been at a sufficient level to fully implement this plan. Under present policy, the Lewis and Clark National Forest takes immediate fire suppression action in all cases of unplanned ignitions except within the Scapegoat Wilderness. A Fire Management Plan for the Scapegoat Wilderness/Danaher portion of the Bob Marshall Wilderness was implemented in 1981. This plan allows for fire to play a more natural role in the wilderness ecosystem in order to perpetuate that system. A Fire Management Plan for the remainder of the Bob Marshall and Great Bear Wilderness is scheduled to be completed by 1985.

Prescribed fire by planned ignitions has for the most part been limited to disposal of activity created fuels such as timber sale slash and road construction debris. The use of fire in natural fuels to improve resource production has received very little emphasis. The result of this management is that vegetation and fuels have progressed; in many areas, beyond the "natural" condition. This "unnatural" condition manifests itself with reduced forage and timber production due to (1) dense conifer growth underneath the forest canopy, increasing competition to crop trees and forage; (2) conifer encroachment into grasslands; (3) a buildup of dead fuels on the forest floor; and (4) in many cases, a decadent grass and shrub condition. This state often leads to "unnaturally" large and destructive wildfires.

A Level I fire analysis was recently completed for the Forest. The Level I report describes the current fire management situation in more detail.

Proposed Forest Plan (1982-2030)

A Level III fire analysis will be completed on the Proposed Forest Plan. This analysis guides the implementation of fire management activities of the Forest Plan. This analysis will identify areas where prescribed fire by planned and unplanned ignitions can be utilized in support of the resource management objectives of the proposed Forest Plan as well as pre-attack for areas of high hazard and potential resource damage.

PROTECTION

INSECT AND DISEASE

Insect and Disease

Nine insects and twenty disease have been identified as major damaging agents of the trees of the Lewis and Clark National Forest.

Mountain Pine Beetle

The mountain pine beetle presents the most serious threat to lodgepole pine. Beetle populations periodically increase and kill most large diameter trees in a forest before subsiding. The Forest has about 250,000 acres which is highly susceptible to mountain pine beetle attacks (over 90 years old).

Mountain pine beetle also attacks ponderosa pine, especially second growth as is found in the Little Snowies. Mountain pine beetle has infested about 10,000 acres of ponderosa pine, mainly on the Judith Ranger District.

Spruce Beetle

Spruce beetle attacks stands which are disturbed by blowdown, logging, or fire. The Forest has limited stands of spruce which are susceptible to the spruce beetle.

Douglas-fir Beetle

Like the spruce beetle, the Douglas fir beetle prefers blowdown, logging slash, fire-scorched trees, or trees damaged by snow or ice.

Western Spruce Budworm

Western spruce budworm attacks spruce, Douglas fir, and subalpine fir. The larvae strips all current needles and some old needles from trees resulting in growth reduction. Continued defoliation results in tree mortality. Western spruce budworm has caused defoliation of nearly 35,000 acres of Douglas fir.

Dwarf Mistletoe

Dwarf mistletoe infestations in lodgepole pine occur in 36.6 percent of the commercial lodgepole pine type on the Forest. Average growth loss is 10 cubic feet per acre per year, for an annual loss of more than 1.5 million cubic feet.

Root Disease

Root disease occurs extensively in Douglas fir and lodgepole pine on the Forest, especially in the Little Belt Mountains and on the Rocky Mountain Division. There are both recognizable root disease centers and scattered individual trees killed by root disease. Volume impact is not known, but is probably substantial. Most of this volume is in the scattered individual trees.

Others

Other insects effect growth, decrease the quality of the wood, or kill the tree. Often trees that have been damaged by wind, snow, fire, or lightning are killed by secondary insects or disease.

PROTECTION

INSECT, DISEASE AND LAW ENFORCEMENT

Red Belt

Disease also affects tree growth, damage portions of the tree, and opens the tree to secondary attacks. Several agents, more often than one, affect an individual tree.

In addition to insects and disease, the Forest has over 20,000 acres of lodgepole pine and Douglas fir which has been damaged by red belt. The name "red belt" is applied to winter drying that occurs in zones or belts more or less following contour lines. Red belt occurs during midwinter or early spring, often a period of cold weather. Sudden large increases in temperature often accompanied by drying winds (chinook) cause excessive loss of water from the needles. This moisture loss cannot be replaced because the soil moisture is either frozen or too cold, is not available from the roots, or because the wood in the stem is frozen and water cannot pass through it. The disease manifests itself by browning of the needles upon the advent of warm weather in the spring.

Proposed Forest Plan (1982-2030)

Law Enforcement

The Forest will concentrate its timber harvest in those areas which are highly susceptible to mountain pine beetle attacks.

The Forest relies on cooperative law enforcement agreements with counties to provide much of its law enforcement needs. Currently the Forest has 11 cooperative agreements. The Forest Law Enforcement Plan calls for one Level IV trained employee in the Rocky Mountain Division, one in the Jefferson Division, and one Level III in the Supervisor's Office. This does not meet the Regional objective to have at least one Level IV trained employee on each Ranger District. Currently, the Forest has one Level III trained employee on the Rocky Mountain District.

Proposed Forest Plan (1982-2030)

The Forest will continue to deal with law enforcement as described above.

FOREST PLAN

CHAPTER IV

FOREST MANAGEMENT DIRECTION

Overview

Forest Management Direction establishes management direction for the Lewis and Clark National Forest for the next 50 years. The chapter is divided into four parts: (1) Forest goals and objectives; (2) summaries of Forest management guidelines; (3) management areas, the goals of the areas, and the practices, standards, and guidelines which apply to each management area; and (4) geographic units.

Proposed Forest Plan

The Proposed Forest Plan will increase the use of Forest resources while maintaining many dispersed recreational opportunities in a semi-primitive setting. At the same time, developed recreation is provided at a high level. Timber harvest and domestic grazing levels are at a moderate level.

Timber harvest activities are programmed only in those areas where extensive investments in roads are commensurate with the values to be removed.

Wildlife habitat is stressed; additional grazing areas will be allocated only after wildlife habitat has been given full consideration.

The Forest will continue to recommend non-surface occupancy, limited surface use, and timing restrictions on all oil and gas leases.

The Big Snowies MWSA will be managed for semi-primitive recreation. The Middle Fork Judith MWSA would be managed in part for low commodity production and in part for semi-primitive recreation.

Long Range Goals

The long range goals for the Lewis and Clark National Forest are:

- 1) Coordinate resource development and use activities so as to protect and improve land and resource quality and productivity, including natural beauty and quality of air, water, and soil.
- 2) Provide a sustained yield of natural resource outputs at a level that will help support the economic structure of local communities and provide for Regional and National needs without damage to the environment.
- 3) Promote high quality wildlife and fish habitat to insure a desired mixture of types and numbers for public benefit. Give special emphasis to the protection of threatened and endangered species.
- 4) Use forestry activities to help minority, economically depressed, elderly, handicapped, and youth groups. Improve Civil Rights opportunities on the Forest by developing closer ties with local Indian tribes and non-traditional groups.
- 5) As part of the continuing land management planning process, consult with and seek cooperative action with agencies at all levels of Government and with private groups, Indian tribes, and individuals in programs for resource management and economic development.
- 6) Emphasize National objectives of reducing inflation and energy dependence in a cost efficient manner.
- 7) Help insure water yields of the quality and quantity needed for local and regional use.

OBJECTIVES

Objectives

The Lewis and Clark National Forest by 2030 will provide annually:

- 1) 230,114 Recreation Visitor Days of Developed Recreation Opportunity
- 2) 2,633,000 Recreation Visitor Days of Dispersed Recreation Opportunity
- 3) 448,350 acres of classified wilderness
- 4) Habitat for a broad base of wildlife species including 100 Grizzly Bears, 10 Wolves, 8,400 Elk, and 190,000 Catchable Trout.
- 5) 3,150 Acre Equivalents of Wildlife Habitat Improvement (425 acres T&E Species; 60 acres Fish Habitat Improvement; and 2,665 acres Other Wildlife)
- 6) 79,200 Animal Unit Months of Domestic Grazing
- 7) 24 Million Board Feet of Timber
- 8) 1,710,000 Acre Feet of Water Meeting Water Quality Standards.
- 9) Reasonable opportunities for exploration and development of mineral resources.

Outputs for the Proposed Forest Plan by time period are shown on Table 4-1.

TABLE 4.1

NA = NOT AVAILABLE

AVERAGE ANNUAL RESOURCE PRODUCTION BENEFITS AND COSTS FOR THE PROPOSED FOREST PLAN

RESOURCE USE AND DEVELOPMENT FACTORS		UNITS	MOUNTAIN RANGES						TOTAL
			RICKIES	LITTLE BELTS	HIGHWOODS	CRAZY	CASTLE	SNOWY	
RECREATION USE POTENTIAL BY 2030									
Thousand RVs									
-Primitive		52	0	0	0	0	0	0	52
-Semi-Primitive		20	125	2	13	12	16	185	
-Roadside Natural Appearing		62	1943	1	21	75	100	2202	
-Rural		8	155	1	1	3	26	194	
-Developed		66	106	20	5	23	10	230	
RECREATION SETTING BY 2030									
Thousand Acres									
-Primitive (Wilderness)		446.3	0	0	0	0	0	446.3	
-Semi-Primitive		273.5	412.4	31.9	16.3	19.5	101.0	854.6	
-Roadside Natural Appearing		49.5	374.8	10.4	22.0	49.2	17.1	523.0	
-Rural		4.9	10.0	.0	.2	1.7	.6	17.4	
WILDLIFE									
Acres Equivalents									
-Wildlife Habitat Improvement									
1982-1990		970	1172	68	125	232	194	2761	
2001-2010		970	1130	70	120	230	190	2710	
2021-2030		970	1100	65	120	230	180	2665	
-Threatened and Endangered Species Habitat Improvement									
1982-1990		425	0	0	0	0	0	425	
2001-2010		425	0	0	0	0	0	425	
2021-2030		425	0	0	0	0	0	425	
FISH HABITAT IMPROVEMENT									
1982-1990		NA	NA	NA	NA	NA	NA	60	
2001-2010		NA	NA	NA	NA	NA	NA	60	
2021-2030		NA	NA	NA	NA	NA	NA	60	
RANGE									
Thousand AUMs									
1982-1990		11.7	33.4	8.3	4.2	9.2	5.9	72.8	
2001-2010		12.9	34.5	8.3	4.4	9.5	6.3	75.9	
2021-2030		13.7	36.4	8.3	4.5	9.8	6.5	79.2	
TIMBER									
Thousand Acres									
-Lands Available, Capable, and Suitable		17.7	216.6	6.8	8.6	22.6	13.7	286.0	
Million Board Feet									
-Timber Volume Harvested 1982-1990									
Programmed Sales		1.3	8.0	.0	1.0	.3	.3	10.9	
Small Sales		.1	1.9	.0	.1	.1	.1	2.3	
Salvage		.3	.3	.0	.0	.0	.0	.6	
Total		1.7	10.2	.0	1.1	.4	.4	13.8	
1991-2000									
Programmed Sales		1.3	12.3	.0	.1	.2	.2	14.1	
Small Sales		.2	2.0	.0	.1	.1	.1	2.5	
Salvage		.1	.3	.0	.0	.0	.0	.4	
Total		1.6	14.6	.0	.2	.3	.3	17.0	
2001-2010									
Programmed Sales		1.3	11.9	.3	.7	1.6	.9	16.7	
Small Sales		.2	2.0	.1	.1	.3	.2	2.9	
Salvage		.1	.3	.0	.0	.0	.0	.4	
Total		1.6	14.2	.4	.8	1.9	1.1	20.0	
2011-2020									
Programmed Sales		1.3	14.8	.4	.7	1.6	.7	19.5	
Small Sales		.2	2.2	.1	.1	.3	.1	3.0	
Salvage		.1	.4	.0	.0	.0	.0	.5	
Total		1.6	17.4	.5	.8	1.9	.8	23.0	
2021-2030									
Programmed Sales		1.3	15.6	.4	.7	1.6	.7	20.3	
Small Sales		.2	2.3	.1	.1	.3	.1	3.1	
Salvage		.1	.5	.0	.0	.0	.0	.6	
Total		1.6	18.4	.5	.8	1.9	.8	24.0	
Acres									
-Reforestation (Natural and Planting)									
1982-1990		114	1133	0	118	139	142	1608	
1991-2000		120	2080	0	13	20	36	2269	
2001-2010		91	2371	50	59	176	104	2891	
2011-2020		87	1761	49	62	216	105	2260	
2021-2030		74	1444	44	64	276	61	2099	
Million Board Feet									
-Long Term Sustained Yield		NA	NA	NA	NA	NA	NA	25.4	
MINERALS									
Thousand Acres									
-Lands Available for Oil and Gas Occupancy Leasing		175	72	14	17	20	13	311	
ROADS									
Miles									
-Arterial and Collector									
1982-1990		.20	2.92	.0	.48	.64	.24	4.48	
1991-2000		.22	4.69	.0	.04	.01	.06	5.02	
2001-2010		.19	1.28	.12	.24	.14	.18	2.15	
2011-2020		.18	4.80	.11	.25	.46	.15	6.95	
2021-2030		.18	3.66	.10	.26	.51	.10	4.81	
Miles									
-Local									
1982-1990		.9	10.7	.0	1.4	.4	.4	13.8	
1991-2000		.9	10.6	.0	.1	.2	.2	12.0	
2001-2010		.8	9.0	.2	.5	1.2	.8	12.5	
2011-2020		.7	15.6	.4	.8	1.7	.7	19.9	
2021-2030		.8	12.3	.3	.6	1.2	.6	15.8	
PRESCRIBED BURNING (Average Annual)									
Acres									
		NA	NA	NA	NA	NA	NA	8697	
Summary of Benefits and Costs									
	TOTAL BENEFITS	RETURNS TO U.S. GOVT.	RETURNS TO COUNTY	TOTAL COSTS	CAPITAL INVESTMENTS	OPERATIONS MAINTENANCE	PURCHASER RD CREDITS	PERMITTEE COSTS	
1982-1990	128.86	.83	.21	4.31	.20	4.11	.57	.09	
1991-2000	164.17	1.02	.26	4.56	.35	4.21	.58	.09	
2001-2010	206.74	1.21	.30	4.81	.41	4.40	.68	.09	
2011-2020	263.70	1.40	.35	5.51	.74	4.77	.81	.09	
2021-2030	309.44	1.54	.39	6.41	.82	5.59	1.37	.09	

FOREST MANAGEMENT GUIDELINES

FOREST MANAGEMENT GUIDELINES

The following Forest Management Guidelines were developed to provide direction for basic Forest operations, maintenance, and protection, and to clarify existing policy. A summary of each management guideline is provided in this part of the chapter. Management guidelines are fully described in the planning record, "Management Guideline Analysis Report."

Management guidelines have been developed for the following:

Recreation Information	A-1
Developed Recreation Operation.	A-2
Maintenance, and Administration	
Recreation Residences	A-3
Travel Shelters	A-4
Winter Dispersed Recreation	A-5
Opportunity	
Special Interest Areas	A-6
Cultural Resource Management	A-7
Deep Creek-Reservoir North	B-1
Study Area	
Wilderness Management	B-2
Wildlife Coordination	C-1
Threatened and Endangered Species	C-2
Wildlife Guidelines	C-3
Fish Habitat	C-4
Riparian Zone Management	R-1
Wetland Zone Management	W-1
Range Improvement	D-1
Noxious Weeds	D-2
Timber Management Coordination	E-1
and Information	
Firewood Administration and Utilization	E-2
Reforestation	E-3
Research Natural Areas	N-1
Erosion Control	F-1
Seismic Exploration	G-1
Oil and Gas Leasing, Exploration	
Drilling, Field Development,	
and Production	G-2
Rehabilitation	G-3
Mineral Withdrawal	G-4
Energy Conservation	G-5
Native American Claims	H-1
Native American Rights	H-2
Land Ownership Adjustment	J-1
Signing	L-1
Travel Plan	L-2
Insect and Disease	P-1

Management Guideline A-1 Recreation Information

Make recreational opportunities more visible by completing the Recreation Opportunity Guide, training additional visitor information service personnel, making more use of existing media to communicate information, and developing a Forest newsletter with current recreation information.

Management Guideline A-2 Developed Recreation Operation, Maintenance, and Administration

(1) Manage charge campgrounds and heavy use campgrounds and picnic areas at full service levels. Facilities will be maintained to the standard originally constructed, and worn and substandard facilities and sites will be replaced or rehabilitated.

(2) Manage low use campgrounds and picnic areas at a reduced service level; however, frequency of patrols will be increased as necessary to reduce user conflicts and damage to Forest resources and recreation facilities. Facilities will be maintained as necessary to protect investment and provide safe, sanitary, and reasonably attractive facilities and sites.

Full implementation will require substantial increases in recreation funding which will compete with other, higher priority, recreation programs. Implementation should therefore be staged to accommodate other priorities.

First Priority - Charge campgrounds will be managed at a full level of administration and operation. Maintenance will be increased to protect the investment and provide safe, sanitary, and reasonably attractive facilities and sites.

Second Priority - Increase information services and public awareness of recreation opportunities. The public need for and Regional direction to provide dispersed recreation opportunities makes this a high priority.

Third Priority - Full implementation of the guideline by providing an optimum level of developed site administration, operation, and maintenance.

FOREST MANAGEMENT GUIDELINES

RECREATION A-3 to A-5

Management Guideline A-3 Recreation Residences

(1) Continue to follow the direction in Forest Service Manual 2721.23 in the administration of recreation residence permits. This direction provides that permits will be terminated if they are incompatible with public interest, or pose substantial physical or conflicts with public needs. Also, termination action can be taken where permittees will not or cannot correct existing or anticipated unacceptable resource degradation, safety hazards, or unsanitary conditions.

(2) Inspect recreation residences a minimum of every four years. Combine fire and recreation inspections.

(3) Provide formal training to Forest Service personnel on permit administration.

Management Guideline A-4 Travel Shelters

(1) Authorize a limited number of new trail shelters in response to user needs.

(2) Evaluate the use of existing Forest Service facilities to meet a portion of user needs on a case by case basis.

Management Guideline A-5 Winter Dispersed Recreation Opportunity

(1) Maintain a program of winter snow trails.

(2) Pursue cooperative programs/agreements with organizations/clubs/and agencies for snow trail maintenance.

(3) Respond to snow trail maintenance and development needs when issues of safety, user conflict, or resource protection needs are determined to be critical.

**Management Guideline A-6
Special Interest Areas**

Inventory, but do not publicly identify, special interest areas on the Forest which deserve special management protection. These areas include caves, archeological sites, and areas containing rare or unusual vegetation. Analysis areas containing special areas have been identified. By cross referencing to the inventory, the forest manager can determine the location and type of special interest area present.

**Management Guideline A-7
Cultural Resource
Management**

Management emphasis for cultural resources at the low standard/service level will include a cultural specialist review, survey, or sample of an area prior to any surface disturbing activities as determined by the programming matrix developed for the Forest. Develop a schedule for visiting known sites to determine what protection, if any, is necessary.

FOREST MANAGEMENT GUIDELINES

WILDERNESS B-1 and B-2

Management Guideline B-1 Deep Creek - Reservoir North Study Area

Continue to allow efforts to gather data on the oil and gas potential in the Deep Creek-Reservoir North RARE II further planning area. Once data on oil and gas potential is available, a wilderness recommendation will be made through an amendment or revision to the Forest Plan.

Management Guideline B-2 Wilderness Management

Follow management direction for the Bob Marshall/ Great Bear/Scapegoat Wilderness Complex as discussed in Appendix D.

Management Guideline C-1 Wildlife Coordination

Conduct intensive coordination and cooperation with the Montana Department of Fish, Wildlife, and Parks by including them early in the planning stages of other resource activities.

Management Guideline C-2 Threatened and Endangered Species

(1) Comply with the Endangered Species Act, as amended, and further the purposes of the Act by carrying out programs for the conservation of endangered and threatened species listed pursuant to the Act.

(2) A biological evaluation will be prepared as a part of the environmental analysis for any proposed project or use which involves threatened and endangered species or their habitat. Established procedures will be followed in determining whether or not formal consultation with the Fish and Wildlife Service is appropriate.

(3) The "Yellowstone Grizzly Bear Guidelines" will be considered in developing management direction for grizzlies in occupied habitat on the Forest.

(4) Direct habitat improvement opportunities and priorities will be identified for grizzly bear based on monitoring study findings or other habitat survey data.

(5) Gray wolf management guidance will be based on the Recovery Plan recommendations and any guidelines which may be developed by the Recovery Team in the future.

(6) Bald eagle and peregrine falcon essential habitat (currently unoccupied) should be maintained in suitable condition. If active nesting sites or other important habitat components are discovered for these species, management guidance will be developed based on information available in the literature as applicable to the specific site.

Management Guideline C-3 Wildlife Guidelines

Follow guideline developed through the Inter-Agency Wildlife Monitoring Program for the Rocky Mountain Front (Appendix E).

Management Guideline C-4 Fish Habitat

- (1) Increase the current level of fisheries resource coordination with other forest activities and programs including timber harvest, range management, and oil and gas exploration or development. Design and schedule fish habitat surveys and studies to develop mitigation guidelines and prescriptions for use in resource coordination.
- (2) Expand the amount of coordination with the Montana Department of Fish, Wildlife, and Parks to adequately address issues and concerns related to the Forest's overall annual program of work.
- (3) Conduct stream and lake fish habitat surveys to determine priorities and opportunities for development of a direct habitat improvement program.
- (4) Develop a fisheries habitat monitoring program to evaluate the effectiveness of standards and guidelines designed to minimize conflicts with other resource uses.

**Management Guideline R-1
Riparian Zone Management**

- (1) Recognize that each riparian ecosystem has combinations of qualities and characteristics unique to itself and should be managed with that in mind.
- (2) New research results and management techniques will be incorporated into existing and newly developing allotment management plans.
- (3) The Forest will adopt new Northern Region riparian zone guidelines as soon as available.
- (4) Districts should complete an inventory of riparian zones. The inventory should prioritize riparian/stream zones by a combination of such factors as present condition, sensitivity to disturbance, and potential conflicts.
- (5) The Forest will provide funding and targets for improvements based on the district inventories. Funds could be obtained from the fish and wildlife function; the range function; the water resource function; the recreation function; the timber function; or a combination of these functions.
- (6) Livestock watering improvements should be developed and delivered away from the riparian/stream zone wherever possible.
- (7) Spring areas should be fenced to protect their integrity. Water for livestock use should be piped outside the fence.
- (8) Salt blocks will be located away from riparian areas.
- (9) When developing grazing management plans for riparian areas, the allocation of AUMs, season of grazing, and assignment of indicators to signal the time for removal of livestock should give full consideration to protecting habitat features of value to the fisheries and wildlife resources of the area.
- (10) Provide for healthy stands of timber. Manage the timber resource to enhance riparian values.

Management Guideline W-1 Wetland Zone Management

- (1) Recognize that each wetland area has combinations of qualities and characteristics unique to itself and each area should be managed with that in mind.
- (2) New research results and management techniques should be incorporated into existing allotment management plans.
- (3) The actual on-the-ground effects of actions within and adjacent to wetland ecosystems should be monitored and evaluated, as appropriate.
- (4) The Forest will adopt new Northern Region wetland zone guidelines as soon as available.
- (5) The Forest should provide funding and targets from improvement and/or management of wetland areas. Funds could be obtained from the fish and wildlife function, the range function, the water resource function, the recreation function, the timber function or a combination of these functions.
- (6) Livestock watering areas will be developed and delivered away from wetland areas wherever possible.
- (7) Spring areas will be fenced to protect their integrity. Water for livestock use should be piped outside the fence.
- (8) Salt blocks will be located on upland range away from wetland areas.
- (9) When developing grazing management plans which include wetlands allocation of AUMs, season of grazing, and assignment of indicators to signal the time for removal of livestock should give full consideration to protecting habitat features of value to the fisheries and wildlife resources of the area.
- (10) Oil and gas activities will be limited in wetlands.

Management Guideline D-1 Range Improvement

Cooperate with permittees in the construction and reconstruction of range improvements. Three approaches are available.

- a) Modify the grazing permit
- b) Use of collection agreements
- c) Use of appropriate procurement procedures when the Forest Service pays the permittee to do all the work

Management Guideline D-2 Noxious Needs

(1) Each district should identify sensitive environments where noxious weed control is needed. Special attention should be paid to: streams, bogs, and associated riparian habitat; upland game bird nesting habitat; any other sensitive non-target animal or habitat which may be adversely affected by spraying.

(2) If no Integrated Pest Management method can replace spraying at present; conduct whatever treatment evaluation is deemed necessary by Forest Service Manual 2155.3.

(3) Annually review spray projects, in environmentally sensitive areas, for opportunities to replace spraying with other Integrated Pest Management methods.

FOREST MANAGEMENT GUIDELINES

TIMBER
E-1 to E-3

Management Guideline E-1 Timber Management Coordination & Information

Environmental analysis process will assure resource coordination. The Forest Service can provide information to the public upon request, raise their awareness of existing information, or disseminate information as various situations warrant.

Management Guideline E-2 Firewood Administration and Utilization

(1) Permits will not be required for free-use firewood cutting areas.

(2) Increase efforts to inform and educate the public regarding general rules and regulations on firewood cutting.

(3) District information and involvement plans should evaluate the necessity of the District contact and must address the techniques to be used in distributing information. The plans must also address methods for the dissemination of detailed information to achieve improved utilization and minimize conflict between users.

(4) Improve utilization through post harvest activities and by emphasizing woodgathering on previously harvested sites. Woodgathering will be emphasized by expanding access, by not burning slash piles in potential woodcutting areas, and developing a public awareness through information and education.

Management Guideline E-3 Reforestation

Continue compliance with NFMA in the area of regeneration of backlog areas. Present District programs are set up to eliminate the regeneration backlog by 1984.

Management Guideline N-1 Research Natural Areas

- (1) Paine Gulch has been nominated as a research natural area (see Management Area M).
- (2) Evaluation criteria used in this guideline will be used in selection of other research natural areas.
- (3) Before classification, the Forest will conduct an environmental analysis to determine the management practices needed to protect the specific research natural area. As a minimum, this analysis will consider withdrawal from mineral entry under the 1872 Act, determine what controls on recreation use are necessary to protect the area and recommend appropriate changes in the Forest Travel Plan, and determine if any other special management practices are needed to protect the area.

**Management Guideline F-1
Erosion Control**

(1) Develop and update Forest handbooks or Forest supplements to Regional or National handbooks on watershed management and erosion control.

(2) Inventory all soil and water restoration needs by October 1, 1982. Restore these areas by the year 2000.

**Forest Guideline G-1
Standards for
Seismic Exploration****Riparian Zones,
Floodplains, and Wetlands****Soil Productivity, Erosion
Watershed, and Air Quality**

The following guidelines will form the basis for specific clauses to be attached to seismic prospecting permits.

No seismic charges will be detonated within 100 feet of an perennial stream or lake. Seismic activities will avoid landtype 201 (wetland). Proposed activities that would impact floodplains and wetlands will meet requirements of Executive Order 11988 and 11990.

(1) Conduct all operations with due regard for good land management, avoid unnecessary damage to improvements, and prevent pollution of soil, air, and water resources.

(2) Reclamation will include, but is not limited to cleanup, removal and proper disposal of stakes, flagging, explosive debris, and other materials utilized during exploration. Reclamation will be performed daily to minimize the amount of time spent on a line and avoid debris being scattered or being covered by snow. In some instances this may require that one line must be cleaned before seismic shooting can begin on the next line.

(3) Any damage resulting from exploration operations to trails, roads, or other improvements will be fully repaired. This includes refilling and seeding (with natural vegetation) disturbed sites.

(4) All seismic drill holes will be plugged with Forest Service approved material such as "bentonite gel" within 18 inches of the surface. At a depth of 18 inches, a plastic plug is to be installed in the drill hole, followed by soil, cuttings, or sod. At the discretion of the District Ranger, shallow drill holes 30 feet deep or less may be plugged with pea gravel or other Forest Service approved substitutes.

(5) Vehicles will not be taken on roads where conditions are wet enough to cause significant damage to the road bed.

(6) Roads, trails, bladed seismic lines, or streambed crossings shall not be constructed unless fully analyzed and found to be consistent with the Forest Plan and sound resource management practices and objectives.

Threatened and Endangered Species

(7) Any helicopter landing sites that require cutting of live vegetation must be approved in advance by the District Ranger.

Threatened and endangered (T&E) wildlife species will be protected through compliance with Section 7(a) of the Endangered Species Act. To accomplish this protection the following guidelines will apply to T&E species habitat:

(1) Seismic activities may be prohibited in T&E species habitat during these designated periods.

Grizzly bear spring range	4/01-6/30
Grizzly bear breeding areas	5/15-7/15
Grizzly bear alpine concentration areas	7/01-9/15
Grizzly bear denning habitat	10/1-4/30

(2) Activities will be temporarily suspended or rescheduled to other areas where there is an excessive amount of activity in order to prevent adverse cumulative impacts on T&E species.

(3) Not more than two activities (seismic crews, timber sales, wildcat wells) will operate in one geographic unit on the Rocky Mountain District at the same time. Special cases where adequate separation can be maintained may be approved by the District Ranger.

(4) Spacing of activities within geographic units may be required when seasonal grizzly bear habitats are limited. One major drainage or three tributary drainages should be allowed between concurrent activities. Visual and topographic barriers must be provided.

(5) Crews will be prohibited from carrying weapons on or over National Forest lands.

(6) Crew camps on National Forest land must be approved by the District Ranger.

Other Wildlife

(1) Seismic activity may be prohibited in big game and other wildlife habitat components as listed during these designated periods.

Elk and Deer winter range	12/1-4/30
Elk calving areas	4/15-6/30
Elk migration route	Designated by District Ranger
Bighorn Sheep winter range	12/1-4/30
Bighorn Sheep lambing areas	4/15-6/30
Bighorn Sheep migration routes	Designated by District Ranger
Mountain Goat winter range	12/1-4/30
Mountain Goat kidding areas	5/01-6/30
Moose winter range	12/1-4/30
Raptor nest sites	Data vary by species

These habitats will be identified from the existing data base with on-the-ground inventory as necessary to determine if the habitat is or will be occupied during the proposed activity.

(2) Consolidate helicopter trips to minimize effect on wildlife through such measures as cleaning debris along lines as seismic shooting progresses.

(3) The permittee will avoid harassment or unnecessary disturbance of threatened and endangered species or big game. (This includes helicopter pilots going out of their way to observe wildlife.)

(4) The District Ranger shall approve in advance the direction of movement along a seismic line. To minimize the amount of flight along a line, helicopter supported surveys generally shall be conducted beginning at the far end of the line from the main landing zone or staging area and work towards that area.

(5) In some areas helicopter flights and blasting will be prohibited one hour before sunset until one hour after sunrise.

Recreation

(1) The permittee must obtain the District Ranger's written authorization specifically permitting activity during the general hunting season prior to conducting activity during that season. Seismic activity during the general big game hunting season must be coordinated by the District Ranger so there will be a minimum disturbance of wildlife and hunting opportunity. This coordination may result in the restriction or termination of seismic activity in certain areas.

Safety

(2) Activities may be temporarily suspended or rescheduled to prevent conflict with concentrated, dispersed, and developed recreation during heavy use periods or on weekends.

(3) Require that helicopters follow flight routes paralleling seismic lines or routes approved in writing by the District Ranger. Routes from staging areas to the seismic lines will be designated. However, during periods of adverse flying conditions or emergencies, flight routes will be selected by the pilot.

(4) Helicopter travel shall avoid, where possible, wildernesses, hunter camps, developed recreation areas, residences, and resorts.

(1) Explosives must be stored and handled in compliance with Federal, State, and local rules and regulations governing the use of such items. No surface changes, above surface charges, or loaded holes shall be left unattended or unprotected. A protected hole shall be a hole that has been loaded so that the charge cannot be removed. The cap leads shall be made inaccessible to or concealed from unauthorized persons.

(2) Normally charges will not be detonated within 1/8 mile of any developed recreation area, residence, or resort.

(3) Require that the permittee post signs to inform the public when blasting is to occur within one mile of any trail. Signs shall be posted at the next trail junction back from the blast zone where Forest users can take an alternative route.

(4) Require that helicopter flight routes be offset 1/4 mile where terrain permits from any trail unless the trail has been closed by special order.

(5) Require that an observer be stationed on each end of a shot to stop and warn Forest users.

(6) In case of the loss or theft of explosives, the Forest Service and the county sheriff will be notified immediately.

Fire**Administration**

(7) Only no-flash or fire retardant explosives will be used.

(8) No surface charges may be placed directly on the ground. All such charges shall be situated at least 36 inches above ground level on lathes.

(9) A maximum of five pounds of explosives will be allowed on one lathe.

(10) Two-pounds/lathe charges shall be situated at least two and a half feet from the nearest tree trunk. Five-pounds/lathe charges shall be situated at least three and a half feet from the nearest tree trunk.

(11) Primacord between charges will be taut. Kinks, droops, and contact with the ground are not allowed. Contact with vegetation shall be avoided.

An attached Fire Plan will be made part of all permit activity during the fire season.

(1) Portions of proposed seismic lines may be required to be submitted on USGS 7-1/2' quad maps.

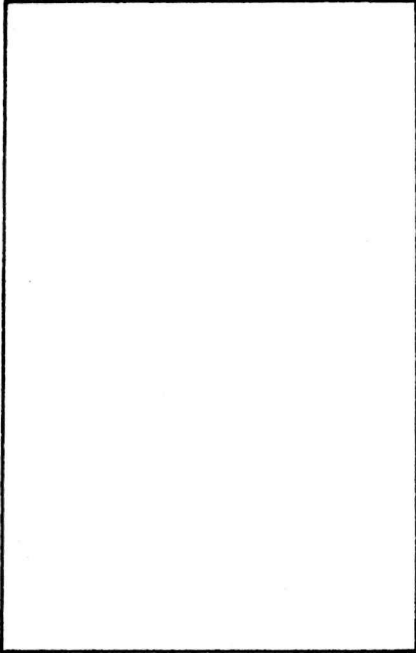
(2) Before a permit is issued, an onsite review of the seismic line may be held with a Forest Service representative, seismic party manager, and line surveyors to determine the exact location of the lines.

(3) The permittee shall appoint and maintain at all times during the term of a permit a local agent upon whom may be served written notices regarding the permit.

(4) A permit must be reviewed item by item and agreed to by the survey party manager and the District Ranger or representative before operations commence.

(5) As a further guarantee of the faithful performance of the conditions of a permit, the permittee shall furnish a surety bond or cash in lieu of a surety bond commensurate with the extent of activity.

(6) Any deviation from the approved permit, such as adjustment of survey routes, must receive prior approval from the District Ranger.



(7) Within 15 days after completion of the exploration project, the permittee will furnish the District Ranger a certified copy of the operation log or survey plat showing the exact location of blowouts and redrilled seismic holes and/or miles of line utilized.

(8) The permittee must receive prior approval from the District Ranger for beginning activity on each individual line.

(9) The local agent will notify the District Ranger when operations are to begin or are completed on National Forest lands. During operations on the Forest, the local agent will notify the District Ranger representative on a daily basis as to the location of activities. (Daily contact can generally be achieved by telephone.)

Management Guideline G-2
Standards for Oil
& Gas Leasing, Exploration
Drilling, Field Development,
and Production
Floodplains, and Wetlands

(1) In so far as possible, roads, drill pads, or pipelines, if constructed, will avoid riparian zones, wetlands, and floodplains and be located as far from streams and lakes as practical, and generally no closer than 100 feet to prevent sediment from entering the aquatic ecosystem.

(2) In those locations where crossing of riparian zones, floodplains, or wetlands is necessary, such crossings will be specially designed to minimize adverse environmental effects. No construction or surface disturbing activities will be permitted in these areas without the written approval of the District Ranger.

(3) Montana State Fish, Wildlife, and Parks will be consulted (FG-124 form) prior to the construction of any project in or adjacent to stream channels using best management practices to limit sedimentation of the stream.

(4) The number of stream crossings will be kept to a minimum. Stream crossings will be constructed using best management practices to limit sedimentation of the stream.

(5) Any waste waters that are thermally polluted or contain sediments, petroleum, and/or other chemicals will not be allowed to enter aquatic systems. For any discharge of water that is a by-product of the exploratory or drilling operation back into natural water, an application for a Waster Discharge Permit must be submitted to the State Board of Health and Environmental Sciences as directed by the Montana Water Quality Act.

Soil Productivity, Erosion, Watershed, and Atmosphere

(1) The "limited surface use stipulation" will be applied to the following landtypes:

14B, 14C, 22, 25C
(Severe cut-bank failure potential)

14K, 23A, 25, 25A, 25B, 41, 42, 177
(Moderate cut-bank failure potential)

(2) Special design measures will be required to mitigate the moderate water erosion hazard on new cut and fill slopes on the following landtypes:

14, 19, 22, 26, 42, 44, 52, 52A, 59, 59A, 59B, 62, 63, 63A, 64, 66, 68, 71, 110, 160, 173

(3) Road construction will not normally be permitted on slopes greater than 60 percent. Drill pads will not normally be permitted on slopes greater than 40 percent. Exceptions to these slope restrictions on occupancy may be made when project level analysis demonstrates that occupancy on steeper slopes is environmentally acceptable.

(4) Release of air pollutants may be minimized by controlling numbers and speed of vehicles used, watering roads, revegetating unneeded roads and sites, and requiring use of applicable pollution control devices on engines.

Cultural Resources

(1) Protection of cultural resources will be accomplished through implementation of the standard stipulations.

(2) To insure compliance with the American Indian Religious Freedom Act, the Blackfeet Tribe will be notified for all exploration drilling and development proposals within the Treaty Lands on the Rocky Mountain District.

Threatened and Endangered Species

(1) Threatened and endangered (T&E) wildlife species will be protected through the consultation procedure, the use of standard stipulations, the "Activity Coordination Stipulation", and the application of special stipulations to individual leases where important T&E habitat has been identified.

(2) The "Activity Coordination Stipulation" has been attached to all leases issued in the Rocky Mountain Division of the Forest. Specific project proposals

Other Wildlife

will be evaluated as to whether the project may affect threatened and endangered species. This evaluation will consider the effects of adjacent oil and gas activity and other Forest activities and uses. If the project may affect T&E species, formal consultation will be initiated with the U.S. Fish and Wildlife Service.

(1) Stipulations will be applied to leases to meet wildlife habitat management objectives for protection of important inventoried wildlife habitat. However, not all important habitat is currently inventoried. Therefore, additional restrictions may result from the environmental analysis for a specific project proposal. While most existing inventory data deals with game species, it is intended that these guidelines apply to non-game species when needed to meet the management objective.

(2) The degree of restriction on oil and gas activities needed to meet this management objective is varied depending on factors such as: (1) sensitivity of the species to human activity; (2) importance of the habitat element to the maintenance of existing population levels; and (3) the availability of alternative habitat.

(3) The following table lists restrictions on oil and gas activities within important habitat elements. No-surface occupancy stipulations will be used when more than one species use the habitat element and the combined seasons of use leave no reasonable opportunity for oil and gas occupancy.

TABLE 4.2

RESTRICTIONS WITHIN IMPORTANT HABITAT

BIOPHYSICAL CONDITIONS	DECISION CRITERIA	MANAGEMENT OBJECTIVE	MANAGEMENT STIPULATIONS
a. Big Game Habitat	BIGHORN SHEEP		
	Winter range	Permit the initiation of new activities only during the period from May 1 to November 30 in order to avoid disturbance of utilized winter range.	Surface Occupancy Restriction Stipulation (timing)
	Lambing areas	Permit the initiation of new activities only during the period from July 1 to April 14 in order to avoid disturbance of utilized lambing areas.	Surface Occupancy Restriction Stipulation (timing)
	Migration routes	The timing of use of migration routes is highly dependent upon variations in weather and seasonal factors, thus consent of the District Ranger must be obtained prior to the initiation of new activities along or in close proximity to established migration routes. Normally some restriction of activity will occur in November. (Timing of restriction will vary.)	Surface Occupancy Restriction Stipulation (timing)
	ELK		
	Winter range	Permit the initiation of new activities only during the period from May 1 to November 30.	Surface Occupancy Restriction Stipulation (timing)
	Calving areas	Permit the initiation of new activities only during the period from July 1 to April 30, in order to avoid disturbance of utilized calving areas.	Surface Occupancy Restriction Stipulation (timing)
	Migration routes	The timing of use of migration routes is highly dependent upon variations in weather and climate factors, as well as upon the timing and duration of hunting season. The consent of the District Ranger must be obtained prior to the initiation of new activities along or in close proximity to established migration routes. Normally some restriction of activity will occur in November. (Timing of restriction will vary.)	Surface Occupancy Restriction Stipulation (timing)
	MULE DEER		
	Winter range	Permit the initiation of new activity and exploratory drilling only during the period from May 1 to November 30.	Surface Occupancy Restrictions (timing)
b. Nongame Habitat	MOUNTAIN GOAT		
	Winter range	Permit the initiation of new activities only during the period from May 1 to November 30 in order to avoid disturbance of utilized winter range.	Surface Occupancy Restriction Stipulation (timing)
	RAPTOR NESTING SITES	If active nesting sites for Golden Eagle or Prairie Falcon are identified avoidance of sites or some restriction of activities may be required from March 1 to July 15.	Surface Occupancy Restriction Stipulation (timing)

Fisheries

(1) For those streams that are identified by the State of Montana as being classified as "highest value", "high value", and "substantial value" habitat for the Upper Missouri cutthroat trout or having a Fisheries Resource value of 2 or better, occupancy will be restricted within the vicinity of the streams or their tributaries (generally 100 feet). The management guidelines for riparian zones, and wetlands will usually protect the fisheries resource, however when it does not, additional restrictions on occupancy will be used.

(2) On some streams, bridges may be appropriate to protect fisheries values. When culverts are used in streams with fisheries values, they must not impede upstream fish movement. Recommended velocities per length of pipe are:

<u>Pipe length (linear feet)</u>	<u>Maximum Velocity (f/s)</u>
30 or less	4.0
40	3.5
50	3.0
60 or greater	2.6

(Note: Maximum velocities may be exceeded during spring runoff when natural velocities are abnormally high.)

In addition, culverts will be installed so that there is a resting pool at both ends of the pipe, the downstream end of the pipe should not have a drop that exceeds 6-8 inches and the minimum water depth within the pipe during low flows should not be less than 6 inches.

(3) Any in-stream disturbances to streams with fisheries values will be scheduled from July 1st to September 14 to reduce potential disturbances of both spring and fall spawning trout.

Recreation Setting and Use

The degree of restriction on oil and gas activities due to recreation use is a function of the recreation setting.

Semi-Primitive

The following guidelines are designed to protect the recreation setting.

(1) These areas are undeveloped lands which are managed for their semi-primitive recreational opportunities. In this setting, oil and gas activities have the most conflict with recreation use. The visual quality objective is usually partial retention.

Roads constructed for sub-surface resources will be closed to public use and obliterated when no longer needed. Reclamation activities will normally include removal of drainage structures and associated fill dirt to the extent necessary to pass expected flood flow. These areas and the road surface will be revegetated.

Any area receiving occupancy activity will be reclaimed to meet its current visual quality objective when oil and gas activities are completed. Occupancy will not be permitted where reclamation to the visual quality objective cannot be met. Specific reclamation and revegetation requirements will be written at the time soil disturbing activities are permitted.

Roaded Natural Appearing Recreation Setting

(2) This setting is located where timber harvest or other surface use practices are evident. Motorized vehicles are permitted on all or part of the road system. In this setting, oil and gas activities are most compatible with recreation use. The only restriction on oil and gas activities imposed by this setting is the timing on the use of roads to minimize conflicts with public use.

Rural Recreation Setting

(3) This setting is located where there is recreation or other developments. Oil and gas activities will be limited and coordinated to protect these developments.

Road Construction

Roads constructed for non-surface resources shall be evaluated as to their value for surface management by the Forest Service. The road may be opened to public use, retained for administrative use by the Forest Service, or the Forest Service may require the lessee to obliterate the road by removing drainage structures and associated fill dirt from stream channels, depending on the manage-

ment objectives and management guidance for the area. Erosion control measures shall be of a standard to render obliterated roads maintenance free.

Roads generally will be constructed following the transportation corridors identified on Geographic Unit Maps. Roads to serve only oil and gas exploration will be built to a minimum standard. However, road design should consider the possible effects of increasing the road width so that impacts are minimized in the event of field development. Roads that will serve other uses will be of higher standards and consider public safety.

Roading specifications for location, design, construction maintenance and rehabilitation of oil and gas roads are being formulated at the present time. These specifications shall be adopted by this plan once they become available. In the interim before such specifications are available, the following specifications shall apply to all roads built for oil and gas exploration.

(1) No turnouts. Drivers of oil and gas vehicles, service vehicles, and government vehicles will be required to use radio communication. Adequate warning signs stating this will be posted at the start of the road.

(2) Road drainage will generally be accomplished by rolling the grade, outsloping, or similar methods. Ditch and culverts will generally not be used.

(3) Low water crossing are permissible for intermittent streams; culverts will be used only where necessary.

(4) 14 foot width (plus minimum clearing).

(5) Grades no greater than 12 percent with pitches not to exceed 16 percent.

(6) Natural clearings will be considered for storage of material removed during road and site construction. Whether or not they will be used will be determined at the time of site specific proposals and will take into account effects on other resources.

**Overall Management
Guidance**

(7) Aggregate surfacing or roads will generally be used only to control erosion.

(8) Gates or cattleguards must be placed at all existing fences and natural barriers crossed by new roads in grazing areas, and any additional fence needed to control livestock must be constructed.

(9) Impacts resulting from increased road access may be minimized by closing these roads to uses other than those required by oil and gas activity.

(10) When existing roads are used, the lessee will be held responsible for their maintenance. If the existing road is used by the public, some restriction on time of use may be applied to minimize conflicts with public usage.

(11) Existing uses and rights, such as powerlines, telephone lines, irrigation canals, and cemeteries which occupy small areas will be protected by the no-surface occupancy stipulations.

(12) On-the-ground inventories for rare plant species must be conducted before surface disturbing activities are permitted in landtypes cited as being in rare plant habitat. Minor relocation of proposed activities may be required for protection of these species.

(1) To insure compliance with the above requirements and other management guidance, monitoring programs will be designed and implemented as needed prior to on-the-ground activity. As a minimum this will include wildlife, cultural resources, water quality, and effectiveness of road closures.

(2) Fire potential will be minimized by the application of standard stipulations and:

- Prohibiting or limiting activity during high fire danger periods;
- Requiring spark arrestors on equipment as required by Montana State law.

**Management Guideline G-3
Standards for
Rehabilitation****Site Definitions**

Prompt revegetation of cut and fill slopes will be required to control surface erosion. Stabilization of disturbed slopes will be attained by seeding with adapted herbaceous grasses, forbs, and deep-rooted native shrubs if necessary.

Revegetative guidelines are based on the definitions assigned to each site. Those sites are as follows:

Wet sites - Water table at or near ground level for the entire year. This would include areas directly adjacent to the streams and seep areas. High water flows would inundate these areas.

Intermediate sites - Water table would be near ground level only part of the season. Soil and moisture conditions are generally favorable.

Dry sites - Water table would never be at ground level except during heavy flood periods. Soil and moisture conditions vary widely, but are generally harsh.

Vegetation

Although it is difficult to categorize each of the sites into one of three classes, this presents no particular problem since many of the plant species chosen have a wide ecological amplitude.

(1) Spacing

<u>Site</u>	<u>Spacing (feet x feet)</u>
Wet	3 x 3
Intermediate	8 x 8
Dry	8 x 8

(2) Species - The following table identifies those used on the various sites with a relative ranking of species from the most tolerant of dryness to the most in need of moisture.

<u>Site Severity</u>	<u>Species Used</u>
Driest	Skunkbrush Sumac
	Golden Current
	Silver Buffaloberry
	Rose
	Silverberry
	Chokecherry
	Honeysuckle
	Canadian Buffaloberry
	Oregon Grape
	Serviceberry
	Snowberry
	Red Osier Dogwood
	Elderberry
	Cottonwood
Most Available Moisture	Willow

This table specifies the grass species mixture to be used for revegetation.

<u>Grass Species</u>	<u>Grass Seed Mixture Lbs/Acre</u>
Smoothbrome (Manchar)	4
Timothy (Climax)	2
Hard Fescue (Durar)	2
Pubescent Wheatgrass (Luna)	3
Orchardgrass (Chinook)	2
Ladak--65 Alfalfa	2
TOTAL	15

Management Guideline G-4 Mineral Withdrawal

- (1) All existing withdrawals which are no longer needed for the purpose withdrawn will be relinquished.
- (2) Administrative costs of withdrawal will not exceed 10 percent of surface investment. Assuming \$6,000 as a minimum administrative cost, current surface value must exceed \$60,000.
- (3) All Research Natural Areas will be withdrawn.
- (4) Withdrawal should only be used where protection is definitely needed and cannot be achieved through other management opportunities.
- (5) The Minerals Staff Officer will coordinate mineral withdrawals within other program objectives. The Lands Staff Officer will have overall responsibility for withdrawals. Review of existing withdrawals shall be completed not later than F.Y. 1990.

Management Guideline G-5 Energy Conservation

Conserve energy through conformance to the Regional Energy Management Plan. This plan presents alternatives for conservation in travel, facilities, and project related work. The Forest will implement those alternatives which meet the criteria of optimizing energy conservation with the least impact on resource targets.

FOREST MANAGEMENT GUIDELINES

Management Guideline H-1 Native American Claims

Establish a working group with representatives of the Blackfeet Tribe to resolve those resource and legal issues that have created management problems for the Rocky Mountain District.

Management Guideline H-2 Native American Rights

1. Assess impacts of Forest Service activities on Native American spiritual sites and objects, as well as on plant and animal material on a project-by-project basis.
2. Implement a special-use permit system to allow for temporary area closure when necessary to enable Native American members to exercise their religious rights without interference from non-participants.
3. Continue to expand Forest programs which promote employment opportunities for Native Americans.

**Management Guideline J-1
Land Ownership Adjustment**

Seek land ownership adjustments to support long-term Forest goals and objectives. See Appendix B.

**Management Guideline J-2
Right of Way Acquisition**

Acquire right-of-way easements for roads and trails to support long-term Forest goals and objectives. See Appendix C. Propose relocation as an alternative to right-of-way acquisition.

**Management Guideline J-3
Land Use**

1. Provide for special use permits to support the Forest goals and objectives.
2. Provide opportunities for private development to support national objectives to become self sufficient in minerals and energy.
3. Provide for private development to support uses which can not be provided on private land such as electronic sites, water development, and transmission lines.

FOREST MANAGEMENT GUIDELINES

FACILITES
L-1 and L-2

Management Guideline L-1 Signing

Establish and maintain signs according to Regional signing standards with the following priority schedule:

1982, 1983 - Safety and Warning Signs
1984, 1985, 1986 - Guide and Directional Signs
1987, 1988, 1989, 1990 - Informational Signs

Management Guideline L-2 Travel Plan

The Forest Travel Plan will be prepared for the Rocky Mountain Division and revised for the Jefferson Division as part of the integrated implementation of the Forest Plan. This will be tiered to the management area prescription. An information and participation plan and a monitoring and enforcement plan will be developed as part of the Travel Plan.

FOREST MANAGEMENT GUIDELINES INSECT AND DISEASE

Management Guideline P-1 Insect and Disease

Timber harvest will emphasize the removal of stands that exhibit characteristics of high risk for Mountain Pine beetle attack.

MANAGEMENT AREAS AND PRESCRIPTIONS

MANAGEMENT AREAS AND PRESCRIPTIONS

The Lewis and Clark National Forest is divided into fourteen different management areas (A, B, C, D, E, G, H, J, K, M, N, P, Q, and R). Each management area may occur in several places on the Forest. The last management area, Riparian Zones (R), occurs throughout all the other management areas.

Management areas are displayed on "Forest Plan Maps", which accompany this document and on "Geographic Unit Maps" in the next part of this chapter. Management area boundaries do not always follow distinct geographical features; however, they are utilized to delineate areas with similar management direction. The boundaries are flexible to assure that the values identified are protected and to incorporate additional information gained from further on-the-ground reconnaissance and project level planning. Forest Plan maps also show riparian areas grazed and not grazed presently. This is based on current management and may change with the Proposed Forest Plan's increase in grazing.

Each management area has one management prescription. Management prescriptions, along with Forest Management Guidelines discussed in the second part of this chapter, define what the management direction is and how it will be implemented. The format for displaying management prescriptions for each management area is:

- (1) Description of management area.
- (2) Discussion of goals of the management prescription. The FORPLAN prescriptions allocated to the management areas are included in parentheses. The letter designations of these prescriptions may be found in the planning record, "Management Prescriptions."
- (3) Management practices, standards, and guidelines. The letter designation of the management practices is listed for reference to the planning record, "Management Practices."
- (4) Schedule of practices by allocation to timber, range, and wildlife management investment for the first two decades. All other practices are assumed to be implemented in the 1st decade.

MANAGEMENT AREAS AND PRESCRIPTIONS

MWSA Areas

As part of the Forest planning process, the Regional Forester is making preliminary recommendations on the Middle Fork Judith Wilderness Study Area and the Big Snowies Wilderness Study Area. Wilderness studies on these lands are required by the Montana Wilderness Study Act of 1977 (Public Law 95-150). Management Areas B and G contain these areas.

Any recommendations are preliminary administrative recommendations which will receive further review and possible modification in the Offices of the Chief, the Secretary of Agriculture, and the President. Congress has reserved the right to make final decisions on wilderness designation.

The two study areas will be managed, subject to existing private rights, to maintain their existing wilderness character and potential for inclusion in the National Wilderness Preservation System until Congress determines otherwise.

Visual Quality Objectives

A general visual quality objective is stated for each management area. This provides overall guidance in managing the visual resource. Implementation will be based on National Forest Landscape Management, Volume 2, Chapter 1, The Visual Management System. USDA, Forest Service, Agricultural Handbook No. 462. Major roads and trails, which have been identified during the Forest planning process and for which the visual resource will be maintained are:

ROADS - Jefferson Division

U.S. Highway 89
U.S. Highway 12
Thain Creek 8841
Belt Park 6511
Logging Creek 253
Dry Wolf 251
Memorial Way 487
Spring Creek 274
Fourmile 211
Crystal Lake 275
Dry Fork Belt Creek 120

ROADS - Rocky Mountain Division

U.S Highway 2
Benchmark 235
South Fork Teton River 109

TRAILS

Elk Calf 137
Two Medicine-Heart Butte 101
Route Creek 108
Headwater Creek 165
Blacktail 223
South Fork of Teton 168
Straight Creek 212
Elks Pass 205
Dearborn River 206
Falls Creek 229
Deep Creek-Biggs Creek 128

North Fork Teton River 144
Sun River 108
Willow Creek - Beaver Creek 233

MANAGEMENT AREAS

MANAGEMENT AREA A

MANAGEMENT AREA A

Description (88,248 Acres)

This management area contains timber stands located in sensitive visual zones. Most of the timber is lodgepole pine and Douglas fir and is located on gentle to steep slopes. Nearly all the area is nonwinter range for big game animals.

Goals (MMECD1, MMECO1, MMECO2, MMECD2, LLAC0 LLACD)

Provide a moderate timber management level while meeting visual quality objectives.

Management Practices, Standards and Guidelines

Recreation AP2A

Manage dispersed area recreation settings and existing recreation improvements, prepare recreation plans, and administrate recreation special use permits.

Recreation Setting

Roaded Natural Appearing. These are predominantly natural appearing environments with moderate evidences of the sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but evidence is prevalent of other users such as loggers or permittees. Resource modification and utilization practices are evident, but they harmonize with the natural environment. Conventional motorized use is provided for with construction of roads.

Visual

Foreground - Retention. Activities must not be visually evident and may only repeat form, line, color, and texture which are frequently found in their qualities of size, amount, intensity, direction, and pattern.

Duration of Visual Impact. Immediate reduction in form, line, color, and texture contrast. Retention should be accomplished either during operations or immediately after. It may be done by such means as seeding vegetative clearings and cut-or-fill slopes, hand planting of large stock, painting structures.

Background - Partial Retention. Activities will remain visually subordinate to the characteristic landscape and may repeat form, line, color, or texture common to the characteristic landscape. However, changes in their qualities of size, amount, intensity, direction, and pattern will remain visually subordinate to the characteristic landscape.

MANAGEMENT AREAS

MANAGEMENT AREA A

	Duration of Visual Impact: Reduction in form, line, color, and texture should be accomplished as soon after project implementation as possible or at a minimum within the first year.
Wildlife CW3g	Provide low level wildlife management including fencing of areas such as winter ranges, wet lands, and water development.
CW2c	Coordinate as necessary to maintain important identified wildlife habitat values. Lengthened rotation ages will provide for diversity of successional stages, including old growth timber. Important habitat elements include T&E species habitat, big game winter ranges, calving or lambing areas, migration routes, elk summer-fall ranges, and raptor nesting sites.
Range DR2b	Manage existing range permits, cooperate with range permittees, monitor range use and cooperate as appropriate in maintaining existing range improvements (replacement of range improvements will be on a 20-year schedule). Prepare range allotment plans or other plans involving the management of the range resource based on a 10-year schedule. Maintain existing range agreements with other agencies or landowners.
DR3a	Prescribed fire will be used to control tree/shrub encroachment and/or crown density on nonforest and noncommercial forest land.
DR3d	New range structural improvements will be used to maintain or increase AUMs. Cost of construction resulting in increased AUMs should be 50 percent Forest Service, 50 percent permittee.
DR3e	Construct/reconstruct range improvements (fences, water developments) to improve livestock distribution and/or maintain existing AUMs in response to other resource values (wildlife, timber, recreation). Cost of construction resulting from another resource use which results in no increased domestic AUMs should be 100 percent Forest Service.
Timber EP3d	The clearcutting method will be used for the final harvest in the general forest where trees are not windfirm. On lodgepole pine stands that are windfirm, the shelterwood cutting method will be the preferred method for the final harvest. However, clearcutting may also be used where edge, shape, scale, and distribution of the clearcut will meet the visual quality objective.

MANAGEMENT AREAS

MANAGEMENT AREA A

EP3e

Final harvest will occur at or beyond the culmination of mean annual increment in order to accomplish visual objectives. This will require the removal of all merchantable trees except a few which may be left to maintain or enhance other values.

Culmination of mean annual increment is the point at which a stand of trees reaches its maximum average annual growth in cubic (maximum cubic feet value obtained by dividing cubic feet volume by age).

Even-aged management - The shelterwood method will be used for the final harvest.

Final harvest will occur at or beyond the culmination of mean annual increment in order to accomplish visual objectives. Shelterwood removal will be accomplished for the most part using a two step method; a seed cut and a removal cut. In occasional cases, where available seed trees are not sufficiently vigorous to produce seed, a light preparation cut may be specified to develop good seed producers. This practice would then be considered as a three step method; preparatory, seed, and removal cut.

Within the shelterwood harvest area, approximately 50 to 70 percent of the merchantable volume will be removed at the seed cut. The remaining volume will be harvested at the removal cut when regeneration is established or when the silvicultural prescription requires this method to accomplish visual objectives.

As part of this harvest method all remaining merchantable trees will be harvested at the removal cut except a few trees may be left to maintain or enhance other resource values.

EC3b

Commercial thinning is a treatment made to reduce stand density in an immature timber stand primarily to accelerate diameter growth but also, by suitable selection, to improve the average form of the trees that remain without permanently breaking the canopy. It will be planned in order to maintain visual objectives. Commercial products derived through this treatment include round wood products and small diameter logs.

MANAGEMENT AREAS

MANAGEMENT AREA A

	Within the general forest the specified year for commercial thinning will be based on the silvicultural prescription for specific stands considering size, species, stocking, basal area, and stand condition. Generally, thinning will not be done on timber stands located on the dry forest landtypes. Approximately 10 percent of the timber stands located on general forest will be thinned.
ER3b	The reestablishment and development of a forest crop may take place naturally by self-sown seed fall from residual or adjacent trees. Where natural regeneration results in low stocking of stands, planting may be used on 10 percent of the general forest stands and 20 percent of the dry forest stands.
EI3	Precommercial thinning will be performed in even-aged stands or groups at any time prior to the beginning of the regeneration period. In this situation the objective is to redistribute growth potential or to benefit the quality of the residual stand. For stands in the general forest under extensive management, precommercial thinning will not be programmed except in cases where stocking is too high and may result in significant growth reduction if not thinned. Thinning will occur on approximately 8 percent of the lodgepole pine stands, especially on the low productivity areas. Precommercial thinning will not be done in the dry forest. For stands under intensive management, precommercial thinning may be done on up to 70 percent of the general forest stands and up to 20 percent of the stands on the dry forest. Administer harvest of unprogrammed amounts of other timber products while maintaining or enhancing other resource values (free use, Christmas trees, firewood, ornamentals, administrative use, salvage, and sanitation cutting).
Soil and Water	
FW2a	Coordinate as necessary to insure that state water quality standards are adhered to (Best Management Practices are applied) and that current soil productivity is maintained. Maintain existing watershed improvements or projects designed to rehabilitate or restore watersheds or the soil resource through either structural or land treatments.

MANAGEMENT AREAS

MANAGEMENT AREA A

Minerals

Evaluate requests for prospecting permits and oil and gas leases.

GA3a

Soil disturbing activities are allowed on all lands environmentally suitable for occupancy. Where oil and gas activities are incompatible with surface use, effects are mitigated through the use of special stipulations. See Management Guidelines for Seismic Exploration (G-1) and Management Guidelines for Oil and Gas Leasing, Exploration Drilling, Field Development, and Production (G-2).

When the combined environmental protection stipulations preclude reasonable development opportunity ask the applicant to accept a non-occupancy lease; if the applicant refuses, recommend denial of the lease application.

Reclaim disturbed areas according to Management Guideline G-3, Standards for Rehabilitation.

GM2a

Administer oil and gas leases and prospecting permits. Administer locatable mineral resources, including Notices of Intents, operating plans, and mined area reclamation.

Roads

Moderate public access will be achieved by permitting motorized access on all arterial roads and a majority of collector roads, as well as local roads. Seasonal closures for wildlife or soil and watershed protection may be used. Some roads which cannot be adequately maintained for motorized use may be restricted or closed to such use. Closed roads may be occasionally opened to permit access for public firewood gathering.

Roads that will be open to general public use will be located and constructed or reconstructed for economical resource management and safe general public use with suitable measures employed to protect all resources.

LS10a

Roads that will be closed to general public use will be located and constructed or reconstructed expressly for the most economical commodity resource management with suitable measures to protect soil and water resources and meet visual quality objectives.

LS10b

Roads constructed by an oil and gas leasee will be closed to public use. During use, the leasee may be required to pay a proportionate share of maintenance cost on pre-existing roads open to the public.

	If the road is open to public use, permit clauses will regulate use to minimize conflicts with the public. If the road is to be closed to public use, but maintained on the permanent system, it will be left by the permittee in a condition suitable for non-use maintenance. If the road is to be left open to the public, it will be left in a condition suitable for the public use level.
Trails	
LS11d	Trails which access adjacent primitive recreation or semi-primitive recreation settings may be constructed or reconstructed and will be designed to a standard compatible with the adjacent recreation setting. Trails serving only the roaded natural appearing setting will be reconstructed to a standard necessary to carry motorized use. However, even when a road provides recreation access, each trail should be analyzed during transportation planning to determine if it has potential recreation value.
LT2a	Most roads and trails will be open to motorized ORV use except for those that cannot be adequately maintained for such use and for protection against erosion or provide for the safety of its users.
Fire	
PD2b	Use prescribed burning with unplanned ignitions for the enhancement and maintenance of other resources. An appropriate suppression will be made for each wildfire ignition. Appropriate suppression response strategies are confinement, containment, and control.
PS12	Use prescribed burning with planned ignitions for the protection, enhancement, and maintenance of resources.
Activity Fuels	
PS9a	Fuel reduction methods include burning, removal of the residue, or rearrangement such as dozer trampling. Disposal activities will meet visual quality objectives.
Insect and Disease	
PI3	Insect and disease suppression activities will be allowed.

SCHEDULE OF PRACTICES (Acre by Decade)

	Decade 1	Decade 2
TIMBER		
EP3d(Clearcut)	760	390
EP3e(Shelterwood)	440	440
EI3(Precommercial thinning)	100	80
ER3b(Reforestation)	1200	830
RANGE		
DR3a(Burning)	760	760
DR3d(Structural Imp.)	2250	2250
DR3e(Structural Imp.)	770	770
WILDLIFE		
CW3g(Fencing)	90	90

All other resource element and support practices are assumed to be implemented in the first decade and apply to all acres.

MANAGEMENT AREA B

Description
(393, 579 Acres)

Goals (MLEO1, MLED1, HLEO1, HLED1, MLEO2, MLED2, HLEO2, HLED2, LLACO, LLACD)

Management Practices, Standards and Guidelines

Recreation
AP2b

Recreation Setting

Visual

This management area contains land in both the general and dry forests. In the general forest, the species mix is approximately 75 percent lodgepole pine and 25 percent Douglas fir. In the dry forest, the species mix is approximately 84 percent Douglas fir, 11 percent ponderosa pine, and 5 percent lodgepole pine. Some of the land produces forage suitable for grazing. It occurs on all slopes, is primarily summer range for big game animals, and contains a majority of commercial forest land in addition to inclusions of noncommercial forest land, grass, rock, and scree.

Protect, maintain, and improve resource quality and production while providing timber and range commodities at moderate intensity levels.

Manage dispersed area recreation settings, and existing recreation improvements, prepare recreation plans and administrative recreation special use permits.

Roaded Natural Appearing. These are predominantly natural appearing environments with moderate evidences of sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is provided for with construction of roads.

Modification. Activities may visually dominate the original characteristic landscape. However, activities of vegetative and land form alteration must borrow from naturally established form, line, color, or texture so completely and at such a scale that its visual characteristics are those of natural occurrences within the surrounding area or character type. Additional parts of these activities such as structures, roads, slash, and root wads, must remain visually subordinate until they are compatible with the natural surroundings.

MANAGEMENT AREAS

MANAGEMENT AREA B

Wildlife

CW3g

Duration of Visual Impact: Reduction in form, line, color, and texture should be accomplished in the first year or at a minimum should meet existing regional guidelines.

Provide low level wildlife management including fencing of areas, such as winter ranges, wet lands, and water developments.

CW2d

Coordinate as necessary to minimize, to the extent practicable, impacts affecting important identified wildlife habitat values without affecting programmed harvest levels or range management objectives. Important habitat elements include T&E habitat, big game winter ranges, calving or lambing areas, migration routes, and elk summer-fall ranges.

Range

DR2b

Management of existing range permits, cooperate with range permittees, monitor range use, and cooperate as appropriate in maintaining existing range improvements (replacement of range improvements will be on a 20-year schedule). Prepare range allotment plans or other plans involving the management of the range resource based on a 10-year schedule. Maintain existing range agreements with other agencies or landowners.

DR3d

Construct/reconstruct of new range structural improvements (fences, water developments) to improve livestock distribution, improve range vigor, and improve range vegetation. Cost of construction may be 50 percent Forest Service, 50 percent permittee, except 100 percent Forest Service cost when required for protection or enhancement of non-range values.

DR3a

Prescribed fire will be used to control tree/shrub encroachment and/or crown density on non-forest and non-commercial forest lands.

Timber

EP3a

The upper drainages of O'Brien Creek will be managed as described for this management area. Any management activity will include protection of water quality to help meet the objectives of Management Unit J.

Even-aged management - The clearcutting method (patch, strip, or stand) will be used for the final harvest. Clearcutting will only be used in the general forest.

EP3b

Final harvest will occur at or near the culmination of mean annual increment. This will require the removal of all merchantable trees except for a few which may be left to maintain or enhance other values.

Even-aged management - The shelterwood method will be used for the final harvest. Shelterwood will be used on Douglas fir stands in the general forest and may be used on all stands in the dry forest.

Final harvest will occur at or near the culmination of mean annual increment. Shelterwood will be accomplished for the most part using a two step method; a seed cut and a removal cut. In occasional cases, where available seed trees are not sufficiently vigorous to produce seed, a light preparation cut may be specified to develop good seed producers. This practice would then be considered as a three step method; preparatory, seed, and removal cut.

Within the shelterwood harvest area, approximately 50 to 70 percent of the merchantable volume will be removed at the seed cut. The remaining volume will be harvested at the removal cut when regeneration is established in the silvicultural prescription.

As part of this harvest method all remaining merchantable trees will be harvested at the removal cut except a few trees may be left to maintain or enhance other values.

EC3a

Commercial thinning is a treatment made to reduce stand density in an immature timber stand primarily to accelerate diameter growth but also, by suitable selection, to improve the average form of the trees that remain without permanently breaking the canopy. Commercial products derived through this treatment include round wood products and small diameter logs.

The specified year for commercial thinning will be based on the silvicultural prescription for specific stands considering size, species, stocking, basal area, and stand condition.

For stands under extensive management, very little commercial thinning will be done.

MANAGEMENT AREAS

MANAGEMENT AREA B

EI3 ER3b ET2 Soil and Water FW2a Minerals	For stands under intensive management in the general forest, up to 90 percent of the stand may be thinned. In the dry forest, only small areas may be treated. Precommercial thinning will be performed in even-aged stands or groups at any time prior to the beginning of the regeneration period. In this situation the objective is to redistribute growth potential or to benefit the quality of the residual stand. For stands in the general forest under extensive management, precommercial thinning will not be programmed except in cases where stocking is too high and may result in significant growth reduction if not thinned. Thinning will occur on approximately 8 percent of the lodgepole pine stands, especially on the low productivity areas. Precommercial thinning will not be done in the dry forest. For stands under intensive management, precommercial thinning may be done on up to 70 percent in the general forest stands and up to 20 percent of the stands in the dry forest. The reestablishment and development of a forest crop may take place naturally by self-sown seed fall from residual or adjacent trees. Where natural regeneration results in low stocking of stands, planting may be used on up to 10 percent on the wet or general forest stands and on up to 20 percent of the stands on the dry forest. Administer harvest of unprogrammed amounts of other timber products while maintaining or enhancing other values (free use, Christmas trees, firewood, ornamentals, administrative use, salvage, and sanitation cutting). Coordinate as necessary to insure that state water quality standards are adhered to (Best Management Practices are applied) and that current soil productivity is maintained. Maintenance of existing watershed improvements or projects designed to rehabilitate or restore watersheds or the soil resource through either structural or land treatments. Evaluate requests for prospecting permits and oil and gas leases.
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MANAGEMENT AREAS

MANAGEMENT AREA B

GA3a	Soil disturbing activities are allowed on all lands environmentally suitable for occupancy. Where oil and gas activities are incompatible with surface use, effects are mitigated through the use of Management Guidelines for Seismic Exploration (G-1), and Management Guidelines for Oil and Gas Leasing, Exploration Drilling, Field Development, and Production (G-2). Reclaim disturbed areas according to Management Guidelines for Rehabilitation (G-3). When the combined environmental protection stipulations preclude reasonable development opportunity ask the applicant to accept a non-occupancy lease; if the applicant refuses recommend denial of the lease application.
GM2b	Administer of oil and gas leases and prospecting permits. Administer locatable mineral resources including Notices of Intents, operating plans, and mined area reclamation.
Roads	Moderate public access will be achieved through permitting motorized access on all arterial roads and a majority of collector roads, as well as local roads which would collectively provide moderate public access. Seasonal closures for wildlife or soil and watershed protection may be used. Some roads which cannot be adequately maintained for motorized use may be restricted or closed to such use. Conversely, closed roads may be occasionally opened to permit managed access for public firewood gathering.
LR2b	Roads that will be open to general public use will be located and constructed or reconstructed for economical resource management and safe general public use with suitable measures employed to protect all resources.
LS10a	Roads that will be closed to general public use will be located and constructed or reconstructed expressly for the most economical commodity resource management with suitable measures to protect soil and water.
LS10b	Roads constructed by an oil and gas leasee will be closed to public use. During use the leasee will pay a proportionate share of maintenance cost on pre-existing roads open to the public.

MANAGEMENT AREAS

MANAGEMENT AREA B

	If the road is open to public use, permit clauses will regulate use to minimize conflicts with the public usage. If the road is to be closed to public use, but maintained on the permanent system, it will be left by the permittee in a condition suitable for non-use maintenance. If the road is to be left open to the public, it will be left in a condition suitable for the public use level.
Trails	
LS11d	Trails which access adjacent primitive recreation or semi-primitive recreation settings may be constructed or reconstructed and will be designed to a standard compatible with the adjacent recreation setting. Trails serving only the roaded natural appearing setting will be reconstructed to a standard necessary to carry motorized use. However, even when a road provides recreation access, each trail should be analyzed during transportation planning to determine if it has potential recreation value.
LT2a	All roads and trails will be open to motorized ORV use except for those that cannot be adequately maintained for such use and for protection against erosion or the safety of its users.
Fire	
PD2a	Current fire suppression policy of aggressive control will normally be the fire management practice for this management area; however, when low to moderate danger prevails, a confinement strategy may be appropriate for purposes of crew safety and/or cost efficient suppression.
PS12	Use prescribed burning with planned ignitions for the protection, enhancement, and maintenance of resources.
Activity Fuels	
PS9a	Fuel reduction methods include burning, removal of the residue, or rearrangement such as dozer trampling. Disposal activities will meet the visual quality objectives.
Insect and Disease	
PI3	Insect and disease suppression activities will be allowed.

SCHEDULE OF PRACTICES (Acre by Decade)

TIMBER	Decade 1	Decade 2
EP3a(Clearcut)	5860	10330
EP3b(Shelterwood)	7190	2530
EC3a(Commercial thinning)	50	100
EI3(Precommercial thinning)	1060	1160
ER3b(Reforestation)	13050	12860
RANGE		
DR3a (Burning)	1270	1270
DR3d(Structural Imp.)	2340	2340

All other resource and support practices are assumed to be implemented in the first decade and apply to all acres.

MANAGEMENT AREAS

MANAGEMENT AREA C

MANAGEMENT AREA C

Description (68,425 Acres)

This management area includes lodgepole pine, Douglas fir, and ponderosa pine located in both the dry and general forest. Some of this land is interspersed with grasslands. The majority of this land is located on big game winter ranges, which occurs on the fringes of the Forest.

Goals ((MMECD1, MMECO1, MMECO2, MMECD2, LLACO, LLACD, MMDO4, MMDO5)

Protect, maintain, and improve resource quality and production while emphasizing wildlife habitat management by creating a diverse habitat and providing a high level of wildlife forage. Provide timber and range commodities compatible with wildlife objectives.

Management Practices, Standards and Guidelines

Recreation AP2A

Manage dispersed area recreation settings and existing recreation improvements, prepare recreation plans and administrative recreation special uses.

Recreation Setting

Roaded Natural Appearing. These are predominantly natural appearing environments with moderate evidences of the sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but evidence is prevalent of other users, such as loggers or permittees. Resource modification and utilization practices are evident, but these harmonize with the natural environment. Conventional motorized use is provided for with construction of roads.

Visual

Partial Retention. Activities will remain visually subordinate to the characteristic landscape and may repeat form, line, color, or texture common to the characteristic landscape. However, changes in their qualities of size, amount, intensity, direction, pattern, etc. remain visually subordinate to the characteristic landscape.

Duration of Visual Impact: Reduction in form, line color, and texture should be accomplished as soon after project completion as possible or at a minimum within the first year.

Wildlife CW3b

Coordinate with range management programs such as prescribed burning and revegetation projects. Jointly financed projects should be considered

	where feasible. This practice applies mainly to low and midslope grasslands.
CW3f	Coordinate with range management program, including fencing and water development. Projects should be jointly financed where both resources benefit. This practice applies mainly to low and midslope grasslands.
CW3g	Wildlife habitat improvement will include fencing of areas such as winter ranges, wetlands, and water developments.
CW2a	Coordinate as necessary to maintain or enhance important identified wildlife habitat values. Lengthened rotation ages will provide for diversity of successional stages, including old growth timber. Important habitat elements include T&E species habitat, big game winter ranges, calving or lambing areas, migration routes, elk summer-fall ranges, and raptor nesting sites.
Range	Manage existing range permits, cooperate with range permittees, monitor range use, and cooperate as appropriate in maintaining existing range improvements (replacement of range improvements will be on a 20-year schedule). Prepare range allotment plans or other plans involving the management of the range resource based on a 10-year schedule. Maintain existing range agreements with other agencies or landowners.
DR2b	
DR3a	Prescribed fire will be used to control tree/shrub encroachment and or crown density on non-forest and non-commercial forest land.
DR3d	Use new structural improvements to increase and/or distribute AUMs. Cost of construction and reconstruction shared 50 percent Forest Service, 50 percent permittee. Construction of new range improvements (fences, water developments) to improve livestock distribution in response to other resource values (wildlife, timber, recreation) and range vegetation. Cost of construction in response to other resource values will be 100 percent Forest Service.
DR3e	Construct/reconstruct new range structural improvements (fences, water developments) to improve livestock distribution and/or to maintain existing AUMs in response to other resource values (wildlife, recreation, timber). Cost of construction in response to other resource values will be 100 percent Forest Service.

Timber**E13**

Precommercial thinning will be performed in even-aged stands or groups at any time prior to the beginning of the regeneration period where the objective is to redistribute growth potential or to benefit the quality of the residual stand.

For stands in the general forest under extensive management, precommercial thinning will not be programmed except in cases where stocking is too high and may result in significant growth reduction if not thinned. Thinning will occur on approximately 8 percent of the lodgepole pine stands, especially on the low productivity areas. In the dry forest, precommercial thinning will not be done.

For stands under intensive management, precommercial thinning may be done on up to 70 percent of the general forest stands and up to 20 percent of the stands on the dry forest.

EP3d

Even-aged management - The clearcutting method (patch, strip, or stand) will be used for the final harvest of lodgepole pine stands that are not windfirm.

Final harvest will occur at or beyond the the culmination of mean annual increment in order to accomplish wildlife objectives. A lengthened rotation creates horizontal diversity for wildlife by allowing the stand to break up and let smaller trees grow within the stand. This will require the removal of all merchantable trees except a few which may be left to maintain or enhance other values.

EP3e

Even-aged management - The shelterwood method will be used for the final harvest.

Final harvest will occur at or beyond the culmination of mean annual increment in order to accomplish wildlife objectives. A lengthened rotation will create horizontal diversity for wildlife by allowing the stand to break up and let smaller trees grow within it. Shelterwood removal will be accomplished for the most part by using a two step method; a seed cut and a removal cut. In exceptional cases, where available seed trees are not sufficiently vigorous to produce seed, a light preparation cut may be specified to develop good seed producers. This practice would then be considered as a three step method: preparatory, seed, and removal cut.

	Within the shelterwood harvest area, approximately 50 to 70 percent of the merchantable volume will be removed at the seed cut. The remaining volume harvested at the removal cut will be when regeneration is established or when the silvicultural prescription requires this method to accomplish wildlife objectives. As part of this harvest method, all remaining merchantable trees will be harvested at the removal cut except that a few trees may be left to maintain or enhance other values.
EC3b	Commercial thinning is a treatment made to reduce stand density in an immature timber stand primarily to accelerate diameter growth but also, by suitable selection, to improve the average form of the trees that remain without permanently breaking the canopy. It will be planned in order to maintain wildlife objectives. Commercial products derived through this treatment include round wood products and small diameter logs. The specified year for commercial thinning will be based on the silvicultural prescription for specific stands considering size, species, stockings, basal area, and stand condition. Generally thinning will not be done on timber stands located in the dry forest. Approximately 10 percent of the timber stands located in general forest will be thinned.
ER3b	The reestablishment and development of a forest crop may take place naturally by self-sown seed fall from residual or adjacent trees.
ET2	Administer harvest of unprogrammed amounts of other timber products while maintaining or enhancing other resource values (free use, Christmas trees, firewood, ornamentals, administrative use, salvage, and sanitation cutting).
Soil and Water	
FW2a	Coordinate as necessary to insure that state water quality standards are adhered to (Best Management Practices are applied) and that current soil productivity is maintained. Maintain existing watershed improvements or projects designed to rehabilitate or restore watersheds or the soil resource through either structural or land treatments.
Minerals	Evaluate request for prospecting permits and oil and gas leases.

MANAGEMENT AREAS

MANAGEMENT AREA C

Minerals

GA3a

Soil disturbing activities are allowed on all lands environmentally suitable for occupancy. Where oil and gas activities are incompatible with surface use, effects are mitigated through the use of special stipulation; see Management Guidelines for Seismic Exploration (G-1) and Management Guidelines for Oil and Gas Leasing, Exploration Drilling, Field Development and Production (G-2).

When the combined environmental protection stipulations preclude reasonable development opportunity ask the applicant to accept a non-occupancy lease; if the applicant refuses, recommend denial of the lease application.

Reclaim disturbed areas according to Management Guidelines for Rehabilitation (G-3).

GM2b

Administer oil and gas leases and prospecting permits. Administer locatable mineral resources including Notices of Intent, operating plans, and mined area reclamation.

Roads

LR2b

Moderate public access will be achieved by permitting motorized access on all arterial roads as well as a majority of collector roads, and some local roads.

Seasonal closures for wildlife, soil, and watershed protection may be used. Some roads which cannot be adequately maintained for motorized use may be restricted or closed to such use. Closed roads may be occasionally opened to permit access for public firewood gathering.

Roads that will be open to general public use will be located and constructed or reconstructed for economical resource management and safe general public use with suitable measures employed to protect all resources.

LS10a

Roads that will be closed to general public use will be located and constructed or reconstructed expressly for the most economical commodity resource management with suitable measures to protect soil and water.

LS10b

Roads constructed by oil and gas leasee will be closed to public use. During use the leasee may be required to pay a proportionate share of maintenance cost on pre-existing roads open to the public.

	If the road is open to public use, permit clause will regulate use to minimize conflicts with the public usage. If the road is to be closed to public use, but maintained on the permanent system, it will be left by the permittee in a condition suitable for non-use maintenance. If the road is to be left open to the public, it will be left in a condition suitable for the public use level.
Trails	
LS11d	Trails which access adjacent primitive recreation or semi-primitive recreation settings may be constructed or reconstructed and will be designed to a standard compatible with the adjacent recreation setting. Trails serving only the roaded natural appearing setting will be reconstructed to a standard necessary to carry motorized use. However, even when a road provides recreation access, each trail should be analyzed during transportation planning to determine if it has potential recreation value.
LT2a	Most roads and trails will be open to motorized ORV use except for those that cannot be adequately maintained for such use and for protection against erosion or provide for the safety of its users.
Fire	
PD2b	Use prescribed burning with unplanned ignitions for the enhancement and maintenance of other resources. An appropriate suppression response will be made for each wildfire ignition. Appropriate suppression response strategies are confinement, containment, and control.
PS12	Use prescribed burning with planned ignitions for the protection, enhancement, and maintenance of resources.
Activity Fuels	
PS9a	Fuel reduction methods include burning, removal of the residue, or rearrangement such as dozer trampling.
Insect and Disease	
PI3	Insect and disease suppression activities will be allowed.

SCHEDULE OF PRACTICES (Acre by Decade)

TIMBER	Decade 1	Decade 2
EP3d(Clearcut)	740	600
EP3e(Shelterwood)	490	400
EI3(Precommercial thinning)	100	90
ER3b(Reforestation)	1230	1000
RANGE		
DR3a(Burning)	670	670
DR3d(Structural Imp.)	1450	1450
DR3e(Structural Imp.)	590	590
WILDLIFE		
CW3b(Burning)	2470	2470
CW3f(Structural Imp.)	180	180
CW3g(Fencing)	10	10

All other resource and support practices are assumed to be implemented in the first decade and apply to all acres.

MANAGEMENT AREA D

Description (38,831)

This management area includes grasslands, high areas, and mosaics (low productive timber stands interspersed with grass). All slopes are included.

Goals (HLD04, HLD05)

Provide a sustained high level of forage production for domestic livestock.

Management Practices, Standards and Guidelines

Recreation AP2b

Manage dispersed area recreation settings, and existing recreation improvements, prepare recreation plans and administrate of recreation special uses (outfitters and guides).

Recreation Setting

Roaded Natural Appearing. These are predominantly natural appearing environments with moderate evidences of the sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but evidence is prevalent of other users, such as loggers or permittees. Resource modification and utilization practices are evident, but they harmonize with the natural environment. Conventional motorized use is provided for with construction of roads.

Visual

Partial Retention. Activities will remain visually subordinate to the characteristic landscape and may repeat form, line, color, or texture common to the characteristic landscape. However, changes in their qualities of size, amount, intensity, direction, pattern, etc., remain visually subordinate to the characteristic landscape.

Duration of Visual Impact: Reduction in form, line, color, and texture should be accomplished as soon after project completion as possible or at a minimum within the first year.

Wildlife CW2d

Coordinate as necessary to minimize, to the extent practicable, impacts affecting important identified wildlife habitat values without affecting programmed harvest levels or range management objectives. Important habitat elements include T&E habitat, big game winter ranges, calving or lambing areas, migration routes, and elk summer-fall ranges.

Range DR3b

Prescribed fire will be used to control tree/shrub encroachment on rangeland. Non-structural improve-

MANAGEMENT AREAS

MANAGEMENT AREA D

	ments to increase AUMs such as revegetation, pitting and seeding, fertilization, and prescribed fire are included.
DR3c	New structural improvements will be used to increase and/or maintain livestock AUMs. New range structural improvements (fences, water developments) will be used to improve livestock distribution, improve range vigor, and improve range vegetation. Cost of construction will be 50 percent Forest Service, 50 percent permittee.
DR2b	Manage existing range permits, cooperate with range permittees, monitor range use, and cooperate as appropriate in maintaining existing range improvements (replacement of range improvements will be on a 20-year schedule). Prepare range allotments or other plans involving the management of the range resource based on a 10-year schedule. Maintain existing range agreements with other agencies or landowners.
Timber	
ET2	Administer harvesting of unprogrammed amounts of other timber products while maintaining or enhancing other resource values (free use, Christmas trees, firewood, ornamentals, administrative use, salvage, and sanitation cutting).
Soil and Water	
FW2c	Coordinate as necessary to insure that state water quality standards are adhered to (Best Management Practices are applied) and that current soil productivity is maintained. Maintain existing watershed improvements or projects designed to rehabilitate or restore watersheds or the soil resource through either structural or land treatments.
Minerals	
GA3a	Evaluate request for prospecting permits and oil and gas leases. Soil disturbing activities are allowed on all lands environmentally suitable for occupancy. Where oil and gas activities are incompatible with surface use, effects are mitigated through the use of special stipulation; see Management Guidelines for Seismic Exploration (Appendix G-1) and Management Guidelines for Oil and Gas Leasing, Exploration Drilling, and Field Development and Production (G-2).

MANAGEMENT AREAS

MANAGEMENT AREA D

	When the combined environmental protection stipulations preclude reasonable development opportunity ask the applicant to accept a non-occupancy lease; if the applicant refuses, recommend denial of the lease application. Reclaim disturbed areas according to Management Guidelines for Rehabilitation (G-3).
GM2b	Administer oil and gas leases and prospecting permits. Administer locatable mineral resources including Notices of Intents, operating plans, and mined area reclamation.
Roads	
LR2b	Moderate public access will be achieved by permitting motorized access on all arterial roads as well as a majority of collector roads, and some local roads. Seasonal closures for wildlife or soil and watershed protection may be used. Some roads which cannot be adequately maintained for motorized use may be restricted or closed to such use. Closed roads may be occasionally opened to permit access for public firewood gathering.
LS10b	Administer proposal for construction or reconstruction of roads for minerals activities. Construction or reconstruction would be to the minimum standard consistent with the stage of the activity or the intended use of the road after completion. Existing roads will be used whenever possible. Roads constructed by an oil and gas leasee will be closed to public use. During use the leasee may be required to pay a proportionate share of maintenance cost on pre-existing roads open to the public. If the road is open to public use, permit clauses will regulate use to minimize conflicts with the public usage. If the road is to be closed to public use, but maintained on the permanent system, it will be left by the permittee in a condition suitable for non-use maintenance. If the road is to be left open to the public, it will be left in a condition suitable for the public use level.
Trails	
LS11c	Trails which access adjacent primitive recreation or semi-primitive recreation settings may be constructed or reconstructed and will be designed to a standard compatible with the adjacent recreation setting. Trails serving only the roaded

MANAGEMENT AREAS

MANAGEMENT AREA D

	natural appearing setting will be reconstructed to a standard necessary to carry motorized use. However, even when a road provides recreation access, each trail should be analyzed during transportation planning to determine if it has potential recreation value.
LT2a	Most roads and trails will be open to motorized ORV use except for those that cannot be adequately maintained for such use and for protection against erosion or provide for the safety of its users.
Fire	Use prescribed burning with unplanned ignitions for the enhancement and maintenance of other resources. An appropriate suppression action will be taken to meet the goals established for the area. Appropriate suppression response strategies are confinement, containment, and control.
PD2b	
PS12	Use prescribed burning through planned ignition for the protection, enhancement, and maintenance of resources.

SCHEDULE OF PRACTICES (Acre by Decade)

RANGE	Decade 1	Decade 2
DR3b(Burning)	7730	7730
DR3c(Structural Imp.)	7770	7770

All other resource and support practices are assumed to be implemented in the first decade and apply to all acres.

MANAGEMENT AREAS

MANAGEMENT AREA E

MANAGEMENT AREA E

Description (105,125 Acres)

This management area contains both grass and forested lands. Nearly all of this area occurs on big game winter range. Most of the land is located near the Forest boundaries.

Goals (MMDO4, MMDO5, LLACO, LLACD, LHC08 LHCO5)

Provide sustained moderate level of forage for domestic livestock while maintaining or improving wildlife habitat.

Recreation AP2a

Manage dispersed area recreation settings and existing recreation improvements, prepare recreation plans, and administrate recreation special uses.

Recreation Setting

Roaded Natural Appearing. These are predominantly natural appearing environments with moderate evidences of sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but evidence is prevalent of other users, such as loggers and permittees. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is provided for with construction of roads.

Visual

Partial Retention. Activities will remain visually subordinate to the characteristic landscape and may repeat form, line, color, or texture common to the characteristic landscape. However, changes in their qualities of size, amount, intensity, direction and pattern will remain visually subordinate to the characteristic landscape.

Duration of Visual Impact: Reduction in form, line color, and texture should be accomplished as soon after project completion as possible or at a minimum within the first year.

Wildlife CW3b

Coordinate with range management programs such as prescribed burning and revegetation projects. Jointly financed projects should be considered where feasible.

CW3d

Use management projects designed to enhance wildlife habitat values, including prescribed burning and revegetation measures. Planting of desirable wildlife forage species will be done on extensive areas as well as sites disturbed by development activities. Other methods of habitat

MANAGEMENT AREAS

MANAGEMENT AREA E

	manipulation, including mechanical treatment and hand cutting, will be used where desirable to maintain or create early successional stages of vegetation.
CW3f	Coordinate with range management program, including fencing and water development. Projects should be jointly financed where both resources benefit.
CW2b	Coordinate as necessary to maintain or enhance important identified wildlife habitat elements, including T&E habitat, big game winter ranges, calving or lambing areas, migration routes, elk summer-fall ranges, raptor nesting sites and significant non-game habitat values.
Range	
DR2c	Manage existing range permits, cooperate with range permittees, monitor range use, and cooperate as appropriate in maintaining existing range improvements (replacement of range improvements will be on a 20-year schedule). Prepare range allotment plans or other plans involving the management of the range resource based on a 10-year schedule. Maintain existing range agreements with other agencies or landowners.
DR3a	Prescribed fire will be used to control tree/shrub encroachment and/or crown density.
DR3d	New structural improvements will be used to maintain or increase AUMs. Cost of construction resulting in increased AUMs should be 50 percent Forest Service, 50 permittee.
Timber	
ET2	Administer harvesting of unprogrammed amounts of other timber products while maintaining or enhancing other resource values (free use, Christmas trees, firewood, ornamentals, administrative use, salvage, and sanitation cutting).
Soil and Water	
FW2a	Coordinate as necessary to insure that state water quality standards are adhered to (Best Management Practices are applied) and that current soil productivity is maintained. Maintain existing watershed improvements or projects designed to rehabilitate or restore watersheds or the soil resource through either structural or land treatments.
Minerals	Evaluate request for prospecting permits and oil and gas leases.

GA3b

Soil disturbing activities are precluded by stipulation or denial of lease application on some environmentally suitable lands to mitigate conflicts with wildlife surface use. The strategy is to maintain the surface suitability for the planned land use after reclamation of oil and gas activity disturbance although often at a lower quality level. See Management Guidelines for Seismic Exploration (G-1) and Management Guidelines for Oil and Gas Leasing, Exploration Drilling, and Field Development and Production (G-2).

When the combined environmental and surface use protection stipulations preclude reasonable development opportunity, ask the applicant to accept a non-occupancy lease; if the applicant refuses, recommend denial of the lease application.

Oil and gas values are usually unknown at the lease decision stage. When this practice is selected it may be necessary to remove or modify surface use protection stipulations through an environmental analysis if an exploratory well demonstrates oil and gas values.

All important wildlife habitat will be restored to pre-use value by following Management Guidelines for Rehabilitation (G-3).

GM2a

Administer oil and gas leases and prospecting permits. Administer locatable mineral resources, including Notice of Intents, operating plans, and mined area reclamation.

Roads

LR2b

Moderate public access will be achieved by permitting motorized access on all arterial roads as well as a majority of collector roads, and some local roads. Seasonal closures for wildlife or soil and watershed protection may be used. Some roads which cannot be adequately maintained for motorized use may be restricted or closed to such use. Closed roads may be occasionally opened to permit access for public firewood gathering.

LS10b

Administer construction or reconstruction of roads for mineral activities. Construction or reconstruction would be to the minimum standard consistent with the stage of the activity or the intended use of the road after completion. Existing roads will be used whenever possible.

Roads constructed by an oil and gas leasee will be closed to public use. During use leasee may be required to pay a proportionate share of maintenance cost on pre-existing roads open to the public.

MANAGEMENT AREAS

MANAGEMENT AREA E

Trails

LS11d

If the road is open to public use, permit clauses will regulate use to minimize conflicts with the public usage. If the road is to be closed to public use, but maintained on the permanent system, it will be left by the permittee in a condition suitable for non-use maintenance. If the road is to be left open to the public, it will be left in a condition suitable for the public use level.

Trails which access adjacent primitive recreation or semi-primitive recreation settings may be constructed or reconstructed and will be designed to a standard compatible with the adjacent recreation setting. Trails serving only the roaded natural appearing setting will be reconstructed to a standard necessary to carry motorized use. However, even when a road provides recreation access, each trail should be analyzed during transportation planning to determine if it has potential recreation value.

LT2b

All roads and trails will be open for motorized ORV use except where use is restricted as to times or season of use, types of vehicles, vehicle equipment, designated areas or trails, or types of activities or the safety of its users.

Fire

PD2b

Use prescribed burning with unplanned ignitions for the enhancement and maintenance of other resources. An appropriate suppression response will be made for each wildfire ignition. Appropriate suppression response strategies are confinement, containment, and control.

PS12

Use prescribed burning with planned ignitions for the protection, enhancement, and maintenance of resources.

SCHEDULE OF PRACTICES (Acre by Decade)

RANGE	Decade 1	Decade 2
DR3a(Burning)	2240	2240
DR3d(Structural Imp.)	4400	4400
WILDLIFE		
CW3b(Burning)	2470	2470
CW3d	2170	2170
CW3f(Structural Imp.)	790	790

All other resource and support practices are assumed to be implemented in the first decade and apply to all acres.

MANAGEMENT AREA G

Description
(574,920 Acres)

This management area contains large areas of undeveloped land. Motorized access is very limited. The land is forested but contains much rock, some grassy inclusions, and is generally steep.

Goals (LLACO, LLACD,)

Provide for the maintenance and protection of Forest resources while providing semi-primitive recreation.

Management Practices, Standards and Guidelines

Recreation
AP2a

Improvements will be limited to needed trailhead facilities along roads that are open to the public.

Manage dispersed area recreation settings and existing recreation improvements, prepare recreation plans and administrative recreation special uses.

Recreation Setting

Semi-primitive. These are predominantly natural or natural-appearing environment of moderate-to-large size. Concentration of users is low, but there is often evidence of other area users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use may be permitted.

Visual

Partial Retention. Activities will remain visually subordinate to the characteristic landscape and may repeat form, line, color, or texture common to the characteristic landscape. However, changes in their qualities of size, amount, intensity, direction, and pattern will remain visually subordinate to the characteristic landscape.

Duration of Visual Impact: Reduction in form, line, color, and texture should be accomplished as soon after project completion as possible or at a minimum within the first year.

Wildlife

CW2b

Coordinate as necessary to maintain or enhance important identified wildlife habitat elements, including T&E habitat, big game winter ranges, calving or lambing areas, migration routes, elk summer-fall ranges, raptor nesting sites and significant non-game habitat values.

CW3b

Coordinate with range management programs such as prescribed burning and revegetation projects. Jointly financed projects should be considered where feasible.

MANAGEMENT AREAS

MANAGEMENT AREA G

Range DR3a	Prescribed fire will be used to control tree/shrub encroachment and or crown density.
DR3e	Construct/reconstruct range structural improvements (fences, water developments) to improve livestock distribution and/or to maintain existing AUMs in response to other resource values (wildlife, recreation, timber). Cost of construction in response to other resource values will be 100 percent Forest Service.
DR2b	Manage existing range permits, cooperate with range permittees, monitor range use, and cooperate as appropriate in maintaining existing range improvements (replacement of range improvements will be on a 20-year schedule). Prepare range allotments or other plans involving the management of the range resource based on a 20-year schedule. Maintain existing range agreements with other agencies or landowners.
Timber ET2	Administer harvesting of unprogrammed amounts of timber products while maintaining or enhancing other resource values (free use, Christmas trees, firewood, ornamentals, administrative use, salvage, and sanitation cutting).
Soil and Water FW2a	Coordinate as necessary to insure that state water quality standards are adhered to (Best Management Practices are applied) and that current soil productivity is maintained. Maintain existing watershed improvements or projects designed to rehabilitate or restore watersheds or the soil resource through either structural or land treatments.
Minerals GA3b	Evaluate request for prospecting permits and oil and gas leases. Soil disturbing activities are precluded by stipulation or denial of lease application on some environmentally suitable lands to mitigate conflicts with wildlife surface use. The strategy is to maintain the surface suitability for the planned land use after reclamation of oil and gas activity disturbance although often at a lower quality level. See Management Guidelines for Seismic Exploration (G-1) and Management Guidelines for Oil and Gas Leasing, Exploration Drilling, and Field Development and Production (G-2).

	Oil and gas values are usually unknown at the lease decision stage. When this practice is selected it may be necessary to remove or modify surface use protection stipulations through an environmental analysis if an exploratory well demonstrates oil and gas values. When the combined environmental and surface use protection stipulations preclude reasonable development opportunity ask the applicant to accept non-occupancy; if the applicant refuses, recommend denial of the lease application. All important wildlife habitat is restored to pre-use value by reclamation. This may require restoration of slope contours and the use of native species for revegetation. In prescriptions with semi-primitive recreation settings the planned recreation setting is restored by obliteration of unused roads by removing road fills and culverts from drainages and seeding. This will be done according to Management Guideline No. G-3, Standards for Rehabilitation.
GM2a	Administer oil and gas leases and prospecting permits. Administer locatable mineral resources including Notices of Intent, operating plans, and mined area reclamation.
Roads LR2c	Low public access will be achieved through permitting motorized access on most existing roads. Generally, roads will not be constructed for surface resource management. Short segments (up to one mile) of roads may be constructed to remove round wood production salvage mortality.
LS10b	Administer construction or reconstruction of roads for mineral activities. Construction or reconstruction would be to the minimum standard consistent with the stage of the activity or the intended use of the road after completion. Existing roads will be used whenever possible. Seasonal road closures for wildlife or soil and watershed protection may be used. Some roads which cannot be adequately maintained for motorized use may be restricted or closed to such use. Closed roads may be occasionally opened to permit access for public firewood gathering. If the road is open to public use, permit clauses will regulate use to minimize conflicts with the

MANAGEMENT AREAS

MANAGEMENT AREA G

Trails

LS11c

LT2a

Fire

PD2b

public usage. If the road is to be closed to public use, but maintained on the permanent system, it will be left by the permittee in a condition suitable for non-use maintenance. If the road is to be left open to the public, it will be left in a condition suitable for the public use level.

Roads constructed for an oil and gas lease will be closed to public use and obliterated when no longer needed. Obliteration activities will normally include removal of drainage structures and associated fill dirt to the extent necessary to pass expected flood flow. Erosion prevention measures such as revegetation will make the road maintenance free.

Trails will be constructed or reconstructed to a standard necessary to carry motorized use and will be designed to blend with the natural landscape.

Most existing roads and trails will be open to motorized ORV use except for those that cannot be adequately maintained for such use and protection against erosion or provide for the safety of its users.

Use prescribed burning with unplanned ignitions for the enhancement and maintenance of other resources. An appropriate suppression response will be made for each wildfire ignition. Appropriate suppression response strategies are confinement, containment, and control.

SCHEDULE OF PRACTICES (Acre by Decade)

	Decade 1	Decade 2
WILDLIFE		
CW3b(Burning)	3990	3990
RANGE		
DR3a(Burning)	5720	5720
DR3e(Structural Imp.)	5750	5750

All other resource and support practices are assumed to be implemented in the first decade and apply to all acres.

MANAGEMENT AREA H Description (31,048 Acres) Goals (SRNED, SRN01, SRN01, SRNE1, SNC01, SCM01, LLAC0) Management Practices, Standards and Guidelines Recreation AP3d AP2a AD2a AD3a Recreation Setting	This management area includes developed recreation sites such as campgrounds, ski areas, recreation residences, and the areas adjacent to these sites. Provide for recreation opportunities supported by public and private developments. Improvements will consist of day use (occupancy spots) and visitor information services, such as signing. Manage dispersed area recreation settings and existing recreation improvements, prepare recreation plans, and administrate recreation special uses. Manage existing developed recreation sites. Prepare recreation plans for specific areas, and administrate recreation special uses. Create new recreation sites or expand and improve existing developed recreation sites (campgrounds, picnic areas). Roaded Natural Appearing. These are predominantly natural appearing environments with moderate evidences of the sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but evidence is prevalent of other users, such as loggers or permittees. Resource modification and utilization practices are evident, but they harmonize with the natural environment. Conventional motorized use is provided for with construction of roads. Rural. This setting is characterized by a substantially modified natural environment. Resource modifications and utilization practices are primarily to enhance recreation activities and to maintain vegetative cover and soil. Sights and sounds of man are readily evident and the interactions between users is often moderate to high. Facilities for motorized use and parking are available.
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MANAGEMENT AREAS

MANAGEMENT AREA H

Visual

Foreground - Retention. Activities must not be visually evident and may only repeat form, line, color, and texture which are frequently found in their qualities of size, amount, intensity, direction, and pattern.

Duration of Visual Impact: Immediate reduction in form, line, color, and texture contrast. Retention should be accomplished either during operation or immediately after. It may be done by such means as seeding vegetative clearings and cut-or-fill slopes, hand planting of large stock, painting structures.

Background - Partial Retention. Activities will remain visually subordinate to the characteristic landscape and may repeat form, line, color, or texture common to the characteristic landscape. However, changes in their qualities of size, amount, intensity, direction, and pattern remain visually subordinate to the characteristic landscape.

Duration of Visual Impact: Reduction in form, line color, and texture should be accomplished as soon after project completion as possible or at a minimum within the first year.

Retention. Activities must not be visually evident and may only repeat form, line, color, and texture which are frequently found in their qualities of size, amount, intensity, direction, and pattern.

Duration of Visual Impact: Immediate reduction in form, line, color, and texture contrast. Retention should be accomplished either during operation or immediately after. It may be done by such means as seeding vegetative clearings and cut-or-fill slopes, hand planting of large stock, painting structures.

Wildlife CW2d

Coordinate as necessary to minimize, to the extent practicable, impacts affecting important identified wildlife habitat values without affecting programmed harvest levels or range management objectives. Important habitat elements include T&E habitat, big game winter ranges, calving or lambing areas, migration routes, and elk summer-fall ranges.

MANAGEMENT AREAS

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Range	
DR3e	Construct/reconstruct new range structural improvements (fence, water developments) to improve livestock distribution and/or to maintain existing AUMs in response to other resource values (wildlife, recreation, timber). Cost of construction in response to other resource values will be 100% Forest Service.
DR3f	Construct structural improvements to exclude livestock from developed recreation sites. Structures will be designed so as not to detract from the natural setting.
DR2d	Manage existing range permits, cooperate with range permittees, monitor range use, and cooperate as appropriate in maintaining existing range improvements (replacement of range improvements will be on a 20-year schedule). Prepare range allotment plans or other plans involving the management of the range resource based on a 20-year schedule. Maintain existing range agreements with other agencies or landowners.
Timber	
ET2	Administer harvesting of unprogrammed amounts of other timber products while maintaining or enhancing other resource values (free use, Christmas trees, firewood, ornamentals, administrative use, salvage, and sanitation cutting).
EP3f	Uneven-aged silvicultural systems will predominate, consisting of individual tree and group selection methods. Within these areas, approximately 15 percent of the merchantable volume will be removed at each entry.
ER3a	Reforestation for the re-establishment and development of a forest crop may take place naturally by self-sown seed fall from residual or adjacent trees.
Soil and Water	
FW2a	Coordinate as necessary to insure that state water quality standards are adhered to (Best Management Practices are applied) and that current soil productivity is maintained.
Minerals	Evaluate requests for prospecting permits and oil and gas leases.

MANAGEMENT AREAS

MANAGEMENT AREA H.

GM3d

Recommend use of no-surface occupancy stipulations for those portions of lease applications for which occupancy would overly conflict with the surface use. Occupancy is permitted only where surface uses can be maintained during occupancy and the quality of the surface for the planned use is fully restored by reclamation after oil and gas activity. Temporary effects during use periods may be allowed but must be mitigated to the fullest extent possible by stipulations. See Management Guidelines No. G-1, Seismic Exploration and No. G-2, Management Guidelines for Oil and Gas Leasing and Exploration Drilling and Production.

When the combined environmental and surface use protection stipulations preclude reasonable development opportunity, ask the applicant to accept non-occupancy lease; if the applicant refuses, recommend denial of the lease application.

GM2a

Administer oil and gas leases and prospecting permits. Administer locatable mineral resources including Notices of Intent, operating plans, and mined area reclamation.

Roads
LR2b

Moderate public access will be achieved through permitting motorized access on all arterial roads as well as a majority of collector roads, and some local roads. Seasonal road closures for wildlife or soil and watershed protection may be used. Some roads which cannot be adequately maintained for motorized use may be restricted or closed to such use. Closed roads may be occasionally opened to permit access for public firewood gathering.

LS10a

Roads that will be open to general public use will be located and constructed or reconstructed for economical resource management and safe general public use along with suitable measures employed to protect all resources.

LS10d

Construct or reconstruct roads in developed recreation sites.

Roads that will be closed to general public use will be located and constructed or reconstructed expressly for the most economical commodity resource management along with suitable measures to protect soil and water.

LR2f

Manage roads for developed recreation sites only.

MANAGEMENT AREAS

MANAGEMENT AREA H

Trails LS11c	Trails which access adjacent primitive recreation or semi-primitive recreation settings may be constructed or reconstructed and will be designed to a standard compatible with the adjacent recreation setting. Trails serving only the roaded natural appearing setting will be reconstructed to a standard necessary to carry motorized use. However, even when a road provides recreation access, each trail should be analyzed through transportation planning to determine if it has potential recreation value.
LT2b	Most roads and trails will be opened for motorized ORV use except where use is restricted as to times or season of use, types of vehicles, vehicle equipment, designated areas of trails, or types of activities or the safety of its users.
Fire PD2a	Current fire suppression policy of aggressive control will normally be the fire management practice for this management area; however, when low to moderate fire danger prevails, a confinement strategy may be appropriate for purposes of crew safety and/or cost efficient suppression.

MANAGEMENT AREAS

MANAGEMENT AREA H

Activity Fuels PS9a

Fuel reduction methods include burning, removal of the residue or rearrangement such as dozer trampling. Disposal activities will meet the retention on a partial retention visual quality objective.

SCHEDULE OF PRACTICES (Acre by Decade)

	Decade 1	Decade 2
TIMBER		
EP3f(Selection)	280	280
ER3b(Reforestation)	280	280
RANGE		
DR3e(Structural Imp.)	2250	2250

All other resource and support practices are assumed to be implemented in the first decade and apply to all acres.

MANAGEMENT AREA J

Description
(7,400 Acres)

The area contains the two municipal watersheds managed on the Lewis and Clark National Forest. One is located at O'Brien Creek south of Neihart, the other at Willow Creek southeast of White Sulphur Springs.

Goal (LLACO)

Maintain high quality water for public domestic use.

Management Practices, Standards and Guidelines

Recreation

AP2c

Prepare dispersed recreation management plans.

Visual

Retention - Activities must not be visually evident and may only repeat form, line, color, and texture of surrounding area.

Wildlife

CW2d

Coordinate as necessary to minimize any impacts affecting important identified wildlife habitat.

Soil and Water

FW2a

Coordinate as necessary to insure that state water quality standards are adhered to (Best Management Practices are applied) and that current soil productivity is maintained. Maintain at a high level the existing watershed improvements or projects designed to rehabilitate or restore watersheds or the soil resource through either structural or land treatment.

Minerals

GA3d

Evaluate request for prospecting permits and oil and gas leases.

Recommend nosurface occupancy of all lease applications because of incompatibility of oil and gas with surface use. See Management Guidelines for Seismic Exploration (G-1) and Management Guidelines for Oil and Gas Leasing, Exploration Drilling, and Field Development and Production (G-2).

Roads

GB3, GM2e

No roads will be constructed. Provide technical assistance in minerals to other agencies, organizations, or groups.

Trails

LS11b, LT2b

Trails will be constructed or reconstructed to a standard necessary to carry non-motorized use and will blend with the natural landscape. All trails will be closed to motorized use.

MANAGEMENT AREAS

MANAGEMENT AREA J

Fire

PD2a

Current fire suppression policy of aggressive control will normally be the fire management practice for this management area; however, when low to moderate fire danger prevails, a confinement strategy may be appropriate for purposes of crew safety and/or cost efficient suppression.

SCHEDULE OF PRACTICES (Acre by Decade)

No investment practices for timber, range, or wildlife scheduled in the first 2 decades in this management area.

All other resource and support practices are assumed to be implemented in the first decade and apply to all acres.

MANAGEMENT AREA K

Description (9,125 Acres)

The 9,125 acre Tenderfoot Experiment Forest, located in the Little Belt Mountains, was established in 1961 for the development of management techniques for harvesting lodgepole pine while maintaining soil stability. The research also will provide methods for improving water yields without aggregating snowmelt, summer storm peaks, and sediment production. Since establishment of the Experimental Forest, development has been minimal. In 1978, a new research proposal to study "multiple resource management of eastside subalpine forest lands in Montana" was made. In 1980, an additional proposal was made to conduct research to "improve our ability to assess, predict, and control non-point pollution from Forest operations". Research projects have been funded.

Goal (SXF01)

Manage Tenderfoot Experimental Forest Service to meet research objectives.

Management Practices, Standards and Guidelines

Recreation

AP2c

Prepare recreation plans.

Recreation Setting

Roaded Natural Appearing. These are predominantly natural appearing environments with moderate evidences of sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but evidence is prevalent of other users, such as loggers or permittees. Resource modification and utilization practices are evident, but these harmonize with the natural environment. Conventional motorized use is provided for with construction of roads.

Visual

Modification. Activities may visually dominate the original characteristic landscape. However, activities of vegetative and land form alteration must borrow from naturally established form, line, color, or texture so completely and at such a scale that its visual characteristics are those of natural occurrences within the surrounding area or character type. Additional parts of these activities such as structures, roads, slash, and root wads, must remain visually subordinate until they are compatible with the natural surroundings.

MANAGEMENT AREAS

MANAGEMENT AREA K

Wildlife CW2b

Duration of Visual Impact: Reduction in form, line, color, and texture should be accomplished in the first year or at a minimum should meet existing regional guidelines.

Alterations may also be out of scale or contain detail which is incongruent with natural occurrences as seen in foreground or middleground.

Coordinate as necessary to maintain or enhance important identified wildlife habitat elements, including calving or fawning areas, migration routes, elk summer-fall ranges, raptor nesting sites, and significant non-game habitat values.

Timber EP3g

The timber resource will be managed through silvicultural systems established for research needs as programmed by the Intermountain Forest and Range Experiment Station Director. Any timber removed will be considered unregulated.

Soil and Water FW2a

Coordinate as necessary to insure that state water quality standards are adhered to (Best Management Practices are applied) and that current soil productivity is maintained. Maintain existing watershed improvements or projects designed to rehabilitate or restore watersheds or the soil resource through either structural or land treatments.

Minerals GA3c

Evaluate requests for prospecting permits and oil and gas leases.

Occupancy is permitted only where surface resources can be maintained during occupancy and the quality of the surface for the planned use is fully restored by reclamation after oil and gas activity. Temporary impacts may be allowed during use periods but must be mitigated to the fullest extent possible by use of the "limited surface use" stipulation. See Management Guidelines for Seismic Exploration (G-1) and Management Guidelines for Oil and Gas Leasing, Exploration Drilling, Field Development and Production (G-2).

In all other prescriptions the full value of the surface for the planned surface use is restored by using Management Guidelines for Rehabilitation (G-3).

GM2a

Administer oil and gas leases and prospecting permits. Administer locatable mineral resources including Notices of Intents, operating plans, and mined area reclamation.

MANAGEMENT AREAS

MANAGEMENT AREA K

Roads

LS10a LR2d

Roads will be managed for both public and Forest Service administrative use. Minimum public access will be achieved through prohibiting motorized access on all but existing arterial roads which are provided through routes. Closed roads may be occasionally opened to permit managed access for public firewood gathering.

Roads that will be closed to general public use will be located and constructed or reconstructed expressly for the most economical commodity resource management along with suitable measures to protect soil and water.

Roads that will be open to general public use will be located and constructed or reconstructed for economical resource management and safe general public use along with suitable measures employed to protect all resources.

Trails

LT2d

All roads and trails will be closed to motorized ORV users. All roads and trails will be closed to motorized ORV use except occasional designated systems which are through-routes connecting areas of motorized use may be permitted.

Fire

PD2a

Current fire suppression policy of aggressive control will normally be the fire management practice for this management area; however, when low to moderate fire danger prevails, a confinement strategy may be appropriate for purposes of crew safety and/or cost efficient suppression.

Insect and Disease
PI3

Insect and disease suppression activities will be allowed.

SCHEDULE OF PRACTICES (Acre by Decade)

No investment practices for timber, range, or wildlife scheduled in the first 2 decades in this management area.

All other resource and support practices are assumed to be implemented in the first decade and apply to all acres.

MANAGEMENT AREAS

MANAGEMENT AREA M

MANAGEMENT AREA M

Description (3,281 Acres)

This area contains the recommended Paine Gulch Research Natural Area. It contains 8 targets for representation of forest vegetation that were established by the Northern Region for the Lewis and Clark National Forest. They are ponderosa pine/Idaho fescue, Douglas fir/Idaho fescue, Douglas fir/Twinflower, Douglas fir/snowberry, Douglas fir/common juniper, subalpine fir/heart leaf arnica, Type I streams, and cold springs.

Goal (SNA00)

Manage as a research natural area.

Management Practices, Standards and Guidelines

Recreation

AP2c

Provide recreation plans.

Visual

Preservation - Allow ecological changes only. Management activities, except for very low visual-impact recreation facilities, are prohibited.

Soil and Water

FW2a

Coordinate as necessary to insure that state water quality standards are adhered to (Best Management Practices are applied) and that current soil productivity is maintained. Maintain existing watershed improvements or projects designed to rehabilitate or restore watersheds or the soil resource through either structural or land treatments.

Minerals

GA3d

Recommend denial of all lease applications because of incompatibility of oil and gas activity with surface use. Recommend to the Secretary of Interior that the land be withdrawn from entry under the 1920 Mineral Leasing Act.

Trails

LS11b, LT2b

Trails will be constructed or reconstructed to a standard necessary to carry motorized use and will be designed to blend with the natural landscape. All roads and trails will be open for motorized ORV use except where use is restricted for resource protection, user safety, or to reduce user conflicts.

Fire

PD2b

Use prescribed burning with unplanned ignitions for the enhancement and maintenance of other resources. An appropriate suppression response will be made for each wildfire ignition. Appropriate suppression response strategies are confinement, containment, and control.

SCHEDULE OF PRACTICES (Acre by Decade)

No investment practices for timber, range, or
wildlife scheduled in the first 2 decades in this management area.

All other resource and support practices are assumed to be implemented in the
first decade and apply to all acres.

MANAGEMENT AREAS

MANAGEMENT AREA N

MANAGEMENT AREA N

Description
(41,838 Acres)

This management area contains the Deep Creek-Reservoir North RARE II Further Planning Area north of Gibson Reservoir, adjacent to the Bob Marshall Wilderness.

Goals (SWS01, SWSD1)

Provide interim management as a Wilderness Study Area. Once the oil and gas potential of the area is determined, a wilderness recommendation will be made through an amendment or revision to the Forest Plan.

Management Practices, Standards and Guidelines

Recreation
AP2c

Manage dispersed area recreation settings and existing recreation improvements, prepare recreation plans, and administrate recreation special uses.

Recreation Setting

Semi-primitive. These are predominantly natural or natural-appearing environments of moderate-to-large size. Concentration of users is low, but there is often evidence of other area users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use is permitted.

Visual

Partial retention. Activities will remain visually subordinate to the characteristic landscape and may repeat form, line, color, or texture common to the characteristic landscape. However, changes in their qualities of size, amount, intensity, direction, and pattern will remain visually subordinate to the characteristic landscape.

Duration of Visual Impact: Reduction in form, line, color, and texture should be accomplished as soon after project completion as possible or at a minimum within the first year.

Wildlife
CW3e, CW2b

Wildlife habitat improvement will include prescribed burning and planting of desirable wildlife foods on disturbed sites.

Coordinate as necessary to maintain or enhance important identified wildlife habitat elements, including T&E habitat, big game winter ranges, calving or lambing areas, migration routes, elk summer-fall ranges, raptor nesting sites, and significant non-game habitat values.

MANAGEMENT AREAS

MANAGEMENT AREA N

	calving or lambing areas, migration routes, elk summer-fall ranges, raptor nesting sites, and significant non-game habitat values.
Range	
DR2c	Manage existing range permits, cooperate with range permittees, monitor range use, and cooperate as appropriate in maintaining existing range improvements (replacement of range improvements will be on a 20-year schedule). Prepare range allotment plans or other plans involving the management of the range resource based on a 20-year schedule. Maintain existing range agreements with other agencies or landowners.
DR3e	Construct/reconstruct range structural improvements (fences, water developments) to improve livestock distribution in response to other resource values (wildlife, recreation, timber). Cost of construction in response to other resource values will be 100 percent Forest Service.
Soil and Water	
FW2b	Coordinate as necessary to insure that state water quality standards are adhered to (Best Management Practices are applied) and that current soil productivity is maintained. Maintain existing watershed improvements or projects designed to rehabilitate or restore watersheds or the soil resource through either structural or land treatments.
Minerals	
GA3b	Surface resource values are protected through the use of special stipulations on all oil and gas leases. The strategy is to maintain the surface suitability for the planned land use after reclamation of oil and gas activity disturbance although often at a lower quality level (See Management Guidelines G-2 and G-3). Oil and gas values are usually unknown at the lease decision stage. When this practice is selected it may be necessary to remove or modify surface use protection stipulations through an environmental analysis if an exploratory well demonstrates oil and gas values.
GM2a	Administer oil and gas leases and prospecting permits. Administer locatable mineral resources including Notices of Intents, operating plans, and mined area reclamation.

MANAGEMENT AREAS

MANAGEMENT AREA N

Roads

LS10c, LR2e

Administer construction or reconstruction of roads for oil and gas activities. Roads will be constructed to the minimum standard consistent with the stage of the activity. Roads will be located only where the land surface and natural vegetative cover can be restored at the completion of use.

The roaded area will be as completely restored to the natural contour as feasible by returning the soil to its original location and through the planting of native vegetation over the recontoured site.

Trails

LS11a, LT2b

Trails will be constructed or reconstructed to a standard necessary to carry non-motorized use and will be designed to blend with the natural landscape in a primitive setting.

All roads and trails will be opened for motorized ORV use except where use is restricted as to times or season of use, types of vehicles, vehicle equipment, designated areas or trails, or types of activities or provide for the safety of its users.

Fire

PD2b

Use prescribed burning with unplanned ignitions for the enhancement and maintenance of other resources. An appropriate suppression response will be made for each wildfire ignition. Appropriate suppression response strategies are confinement, containment, and control.

SCHEDULE OF PRACTICES (Acre by Decade)

	Decade 1	Decade 2
RANGE DR3e(Structural Imp.)	290	290
WILDLIFE CW3c(Planting/Burning)	2340	2340

All other resource and support practices are assumed to be implemented in the first decade and apply to all acres.

MANAGEMENT AREA P

Description
(385,046 Acres)

This management area includes the Bob Marshall, Scapegoat, and Great Bear addition to the Bob Marshall Wilderness.

Goals (SWM02, SWMD2)

Manage as classified wilderness while providing a primitive recreation setting and the opportunity for a primitive recreation experience. Allow limited investment in range management and trail construction.

Management Practices, Standards and Guidelines

Recreation

BM2a, AP3a

Manage the areas to achieve the objectives specified in the 1964 Wilderness Act. Improvements are limited to trail construction or reconstruction and range improvements.

Recreation Setting

Primitive. These are essentially unmodified natural environments of fairly large size. Interaction between users is very low and evidence of other area users is minimal. The area is managed to be essentially free from evidence of man-induced restrictions and controls. Motorized use is not permitted.

Visual

Preservation. This visual guideline allows ecological changes only. Management activities, except for very low visual-impact recreation facilities, are prohibited.

Wilderness

Follow the Management Guideline for the Bob Marshall/Scapegoat/Wilderness Complex as described in Appendix D. Early in the planning process, a decision was made to combine the management direction for the Bob Marshall, Great Bear, and Scapegoat Wildernesses because these areas have contiguous boundaries forming a massive wilderness complex. Wilderness visitors often travel across administrative boundaries (Wilderness, National Forest, and Ranger District) and are confused by differing policies and standards of operation, maintenance, and cleanup.

The situation analysis and management direction in Appendix D have been developed by a team of wilderness managers and Forest planners from each of the involved Ranger Districts and Forest headquarters of the Flathead, Helena, Lewis and Clark, and Lolo National Forests. Provisions of the National Forest Management Act of 1976 require each Forest

MANAGEMENT AREAS

MANAGEMENT AREA P

	Plan to provide for the management of all National Forest System lands within the individual Forest's administrative boundary. Appendix D covers management direction for situations that occur across National Forest boundaries within the three wilderness complex. It also contains specific management direction for localized situations occurring in the Scapegoat Wilderness and Bob Marshall. Other localized situations will be addressed in the Forest Plan for the Flathead and Helena National Forests. Once the Forest Plans are complete, all management direction for the three-wilderness complex will be put together into one document, and will be made available to the public.
Wildlife CW2b	Coordinate as necessary to maintain or enhance important identified wildlife habitat elements, including T&E habitat, big game winter ranges, calving or lambing areas, migration routes, elk summer-fall ranges, raptor nesting sites and significant non-game habitat values.
Range DR2d	Manage existing range permits, cooperate with range permittees, monitor range use, and cooperate as appropriate in maintaining existing range improvements (replacement of range improvements will be made on a 20-year schedule). Prepare range allotment plans or other plans involving the management of the range resource based on 20-year schedule. Maintain existing range agreements with other agencies or landowners.
 DR3e	Construct/reconstruct new range structural improvements (fences, water developments) to improve livestock distribution and/or to maintain existing AUMs in response to other resource values (wildlife, and recreation). Cost of construction in response to other resource values will be 100 percent Forest Service.
Soil and Water FW2b	Coordinate as necessary to insure that state water quality standards are adhered to (Best Management Practices are applied) and that current soil productivity is maintained. Maintenance of existing watershed improvements. Projects designed to rehabilitate or restore watersheds or the soil resource will use natural processes.
Minerals	Recommendations on oil and gas lease applications will be made through an environmental analysis for the entire wilderness complex.

GM2c Trails LS11a, LT3c Fire PD2b	Administer locatable mineral resources, including mined area reclamation. Trails will be constructed or reconstructed to a standard necessary to carry nonmotorized use and will be designed to blend with the natural landscape in a primitive setting. Construction methods will be limited to nonmotorized methods unless approved by Regional Forester. Motorized use is prohibited. Trails may be closed or the amount of use restricted to protect the wilderness resource, the recreation experience or the safety of the user. Maintenance will be performed using nonmotorized methods unless approved by the Regional Forester. Use prescribed burning with unplanned ignitions for the enhancement and maintenance of other resources. An appropriate response will be made for each wild-fire ignition. Appropriate suppression response strategies are confinement, containment, and control. A Fire Management Plan for the Scapegoat Wilderness/Danaher portion of the Bob Marshall Wilderness was approved in July 1981. A Fire Management Plan for the remainder of the Bob Marshall Wilderness is scheduled to be completed by 1985.
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SCHEDULE OF PRACTICES (Acre by Decade)

No investment practices scheduled for timber, range, or wildlife scheduled in the first 2 decades in this management area.

All other resource and support practices are assumed to be implemented in the first decade and apply to all acres.

MANAGEMENT AREA Q

Description
(63,304 Acres)

This management area includes the recommended wildernesses: Renshaw and Silver King - Falls Creek. These areas are on the Rocky Mountain District and are contiguous with the Bob Marshall and Scapegoat Wildernesses.

Goals (SWM02, SWMD2)

Manage as recommended wilderness with limited investment allowed in range management and trail construction.

Management Practices, Standards and Guidelines

Recreation
BM2a, AP3a

Manage these areas so as not to preclude there inclusion in the National Wilderness Preservation System.

Recreation Setting

Primitive. These are essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other area users is minimal. The area is managed to be essentially free from evidence of man-induced restrictions and controls. Motorized use is not permitted.

Visual

Preservation. This visual guideline allows ecological changes only. Management activities, except for very low visual-impact recreation facilities, are prohibited.

Wildlife
CW2b

Coordinate as necessary to maintain or enhance important identified wildlife habitat elements, including T&E species habitat, big game winter ranges, calving or lambing areas, migration routes, elk summer-fall ranges, raptor nesting sites and significant non-game habitat values.

Range
DR3e

Construct/reconstruct new range structural improvements (fences, water developments) to improve livestock distribution and/or to maintain existing AUMs in response to other resource values (wildlife, recreation, timber). Cost of construction in response to other resource values will be 100 percent Forest Service.

DR2d

Manage existing range permits, cooperate with range permittees, monitor range use and cooperate as appropriate in maintaining existing range improvements (replacement of range improvements will be on a 20-year schedule). Preparation of range allotment plans or other plans involving the management of the range resource based on a 20-year schedule. Maintenance of existing range agreements with other agencies or landowners.

MANAGEMENT AREAS

MANAGEMENT AREA Q

Soil and Water

FW2a

Coordinate as necessary to insure that state water quality standards are adhered to (Best Management Practices are applied) and that current soil productivity is maintained. Maintain existing watershed improvements or projects designed to rehabilitate or restore watersheds or the soil resource through either structural or land treatments.

Minerals

GM2c

Recommendations on oil and gas lease applications will be made through environmental analysis for the entire wilderness complex.

Trails

LS11a, LT3c

Administer of locatable mineral resources, including mined area reclamation.

Trails will be constructed or reconstructed to a standard necessary to carry nonmotorized use and will be designed to blend with the natural landscape in a primitive setting.

Trails may be closed or the amount of use restricted to protect the wilderness resource, the recreation experience or the safety of the user.

Fire

PD2b

Use prescribed burning with unplanned ignitions for the enhancement and maintenance of other resources. An appropriate suppression response will be made for each wildfire ignition. Appropriate suppression strategies are confinement, containment, and control.

SCHEDULE OF PRACTICES (Acre by Decade)

RANGE

DR3e(Structural Imp.)

Decade 1

580

Decade 2

580

All other resource and support practices are assumed to be implemented in the first decade and apply to all acres.

MANAGEMENT AREA R

Description
(33,225 Acres)

This management area consists of riparian zones located throughout the Forest. They are made up of the stream and the vegetation associated with the stream, mainly spruce and Douglas fir growing in bottomlands. Streams usually flow year round in these areas, although the main characteristic of these management areas is riparian vegetation, not necessarily stream flow.

Goals (SRZ01, SRZD1, SRZED, SRZE1)

Manage to protect or enhance unique ecosystem values associated with riparian zones. Timber and range management activities are permitted.

Follow the Management Direction in Forest Management Guideline R-1, Riparian Zone Management.

Management Practices, Standards and Guidelines

Recreation
AP3d

Improvements will consist of day use and visitor information services, such as signing.

AP2a

Manage dispersed area recreation activities and existing recreation improvements, prepare recreation plans, and administer recreation special use permits.

Recreation Setting
Visual

The Riparian Management Area will be managed to meet adjacent recreation settings, and visual quality objectives.

Wildlife
CW3h

Fencing will be coordinated to maintain or enhance other important resource values.

CW2e

Coordinate to maintain or enhance important identified wildlife and fish habitat values. Uneven-aged harvest systems will provide for stream shading, bank stability protection, and a range of successional stages. Important habitat elements include T&E species habitat, big game winter ranges, calving or lambing areas, migration routes, elk summer-fall ranges, raptor nesting sites and significant non-game habitat values.

Range

DR2d

Manage existing range permits, cooperate with range permittees, monitor range use, and cooperate as appropriate in maintaining existing range improvements (replacement of range improvements will be made on a 20-year schedule). Prepare range allotment plans or other plans involving the management of the range resource based on a 20-year schedule. Maintain existing range agreements with other agencies or landowners.

MANAGEMENT AREAS

MANAGEMENT AREA R

DR3d	Use new range structural improvements to increase and/or distribute AUMs. Cost of construction shared 50 percent Forest Service, 50 percent permittee. Construction of new range improvements (fences, water developments) to improve livestock distribution in response to other resource values (wildlife, timber, recreation) and range vegetation. Cost of construction in response to other resource values will be 100 percent Forest Service.
Timber	
EP3f	Uneven-aged systems will predominate within the zone, consisting of individual tree and group selection methods. Also, even-aged shelterwood harvest method may be permitted where conditions warrant. The silvicultural method employed will be based on site conditions, timber type, and compatibility with long term scheduling on adjacent Management Areas A, B, and C.
ET2	Administer harvesting of other timber products while maintaining or enhancing riparian values (free use, Christmas trees, firewood, ornamentals, administrative use, salvage, and sanitation cutting).
Soil and Water	
FW2a	Coordinate as necessary to insure that state water quality standards are adhered to (Best Management Practices are applied) and that current soil productivity is maintained. Maintain existing watershed improvements or projected designed to rehabilitate or restore watersheds or the soil resource through either structural or land treatments.
Minerals	
GA3b	Soil disturbing activities will be precluded by no-surface occupancy where appropriate or denial of lease application on some environmentally suitable lands to mitigate conflicts with wildlife surface use. The strategy is to maintain the surface suitability for the planned land use after reclamation of oil and gas activity disturbance (see Management Guidelines No G-2, Standards for Oil and Gas Leasing, Exploration Drilling, Field Development, and Production, and No. G-3, Standards for Rehabilitation. All important wildlife habitat will be restored to pre-use value by reclamation. This may require restoration of slope contours and the use of native species for revegetation.

MANAGEMENT AREAS

MANAGEMENT AREA R

GM2a

Roads and Trails

Fire

PD2a

Prescriptions with a semi-primitive recreation setting is restored by obliteration of unused roads by removing road fills and culverts from drainages and seeding. Roads retained for administrative use will be gated or otherwise closed to public use. In prescriptions for lands with wilderness value the slope contour shall be restored and revegetated with native vegetation. Only the visual effect of newly established plantings on restored areas remains to detract from apparent naturalness of the area after reclamation* (see Management Guideline for Rehabilitation, G-3).

Administer oil and gas leases, and prospecting permits. Administer of locatable mineral resource including mined area reclamation.

The Riparian Management Area will be managed to be compatible with adjacent road and trail management.

Current fire suppression policy of aggressive control will normally be the fire management practice for this management area; however, when low to moderate fire danger prevails, a confinement strategy may be appropriate for purposes of crew safety and/or cost efficient suppression.

SCHEDULE OF PRACTICES (Acre by Decade)

	Decade 1	Decade 2
TIMBER		
EP3f (Selection cutting)	100	100
RANGE		
DR3d (Structural Imp.)	5124	5124
WILDLIFE		
CW3h (Fencing)	100	100

All other resource and support practices are assumed to be implemented in the first decade and apply to all acres.

GEOGRAPHIC UNITS

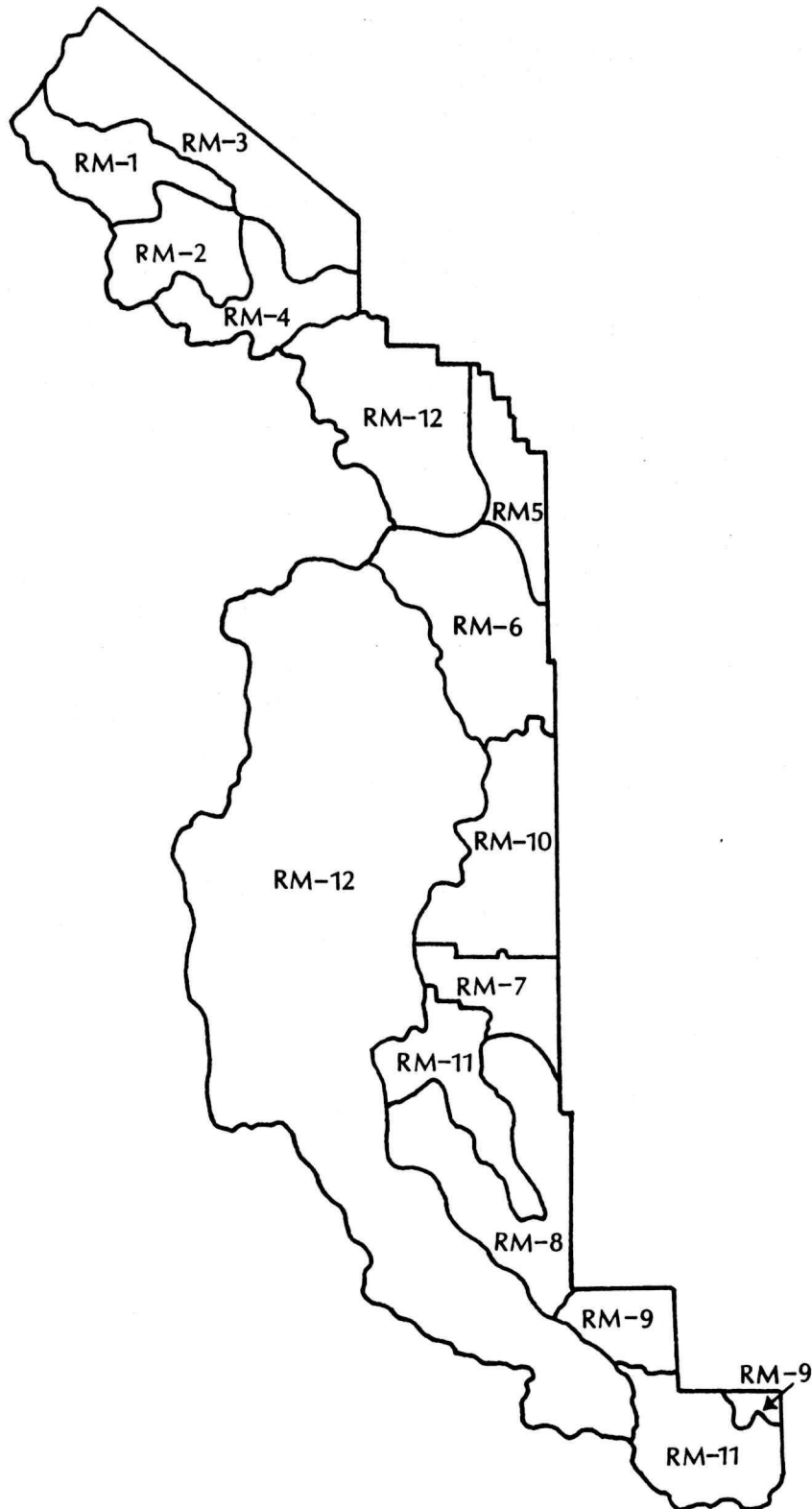
GEOGRAPHIC UNITS

Geographic units were developed to describe and show how the management area prescriptions will affect specific parts of the Forest. Geographic units do not provide management direction. Geographic units are described in terms of their physical and biological setting, past management activities, and future management activities. Geographic unit maps show management areas, transportation corridors that will be developed for surface resource management, the 10-year timber sales program (Shaded areas represent areas where timber harvest activities are planned. An entire shaded area will not be harvested, but rather only portions of an area.), land exchange possibilities, and right-of-way acquisition needs. The 10-year timber program, land exchange possibilities, and right-of-way acquisition needs are listed in the appendix.

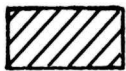
For the Rocky Mountain Division, separate geographic unit maps show oil and gas occupancy opportunities as developed for oil and gas leases, and transportation corridors that could be developed for oil and gas exploration drilling and production. Also shown on Maps RM-1 and RM-2 is what "large discovery" might look like. A "most probable" discovery is shown on Map RM-5. These illustrations are based on occupancy opportunities, well-spacing requirements, and local road needs.

Geographic units are grouped by mountain ranges. Geographic units for the Rocky Mountain Division are shown on page 4-100 and for the Jefferson Division on page 4-148.

Lewis & Clark National Forest Plan Rocky Mountain Division Geographic Units



Legend

- Geographic Unit
- Management Area
-  Timber Sale Area
-  Campground

Landownership Adjustment

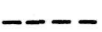
-  Suitable for Acquisition
-  Suitable for Disposal

Roads.

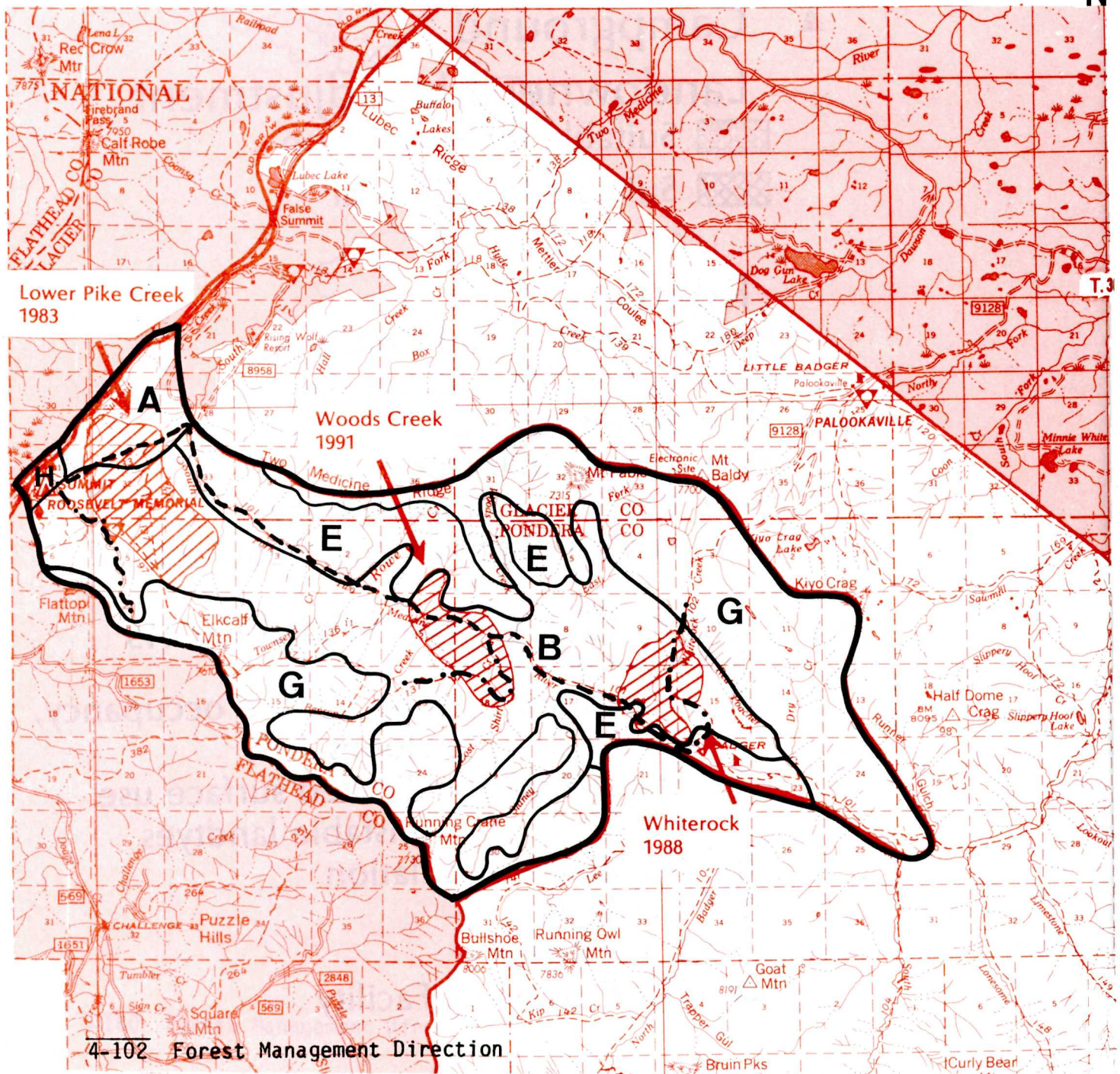
-  Federal — Aid Collector
-  Federal — Aid Arterial
-  Forest Arterial
-  Forest Collector
-  County or other Agency
-  Private (Right of Way Required)

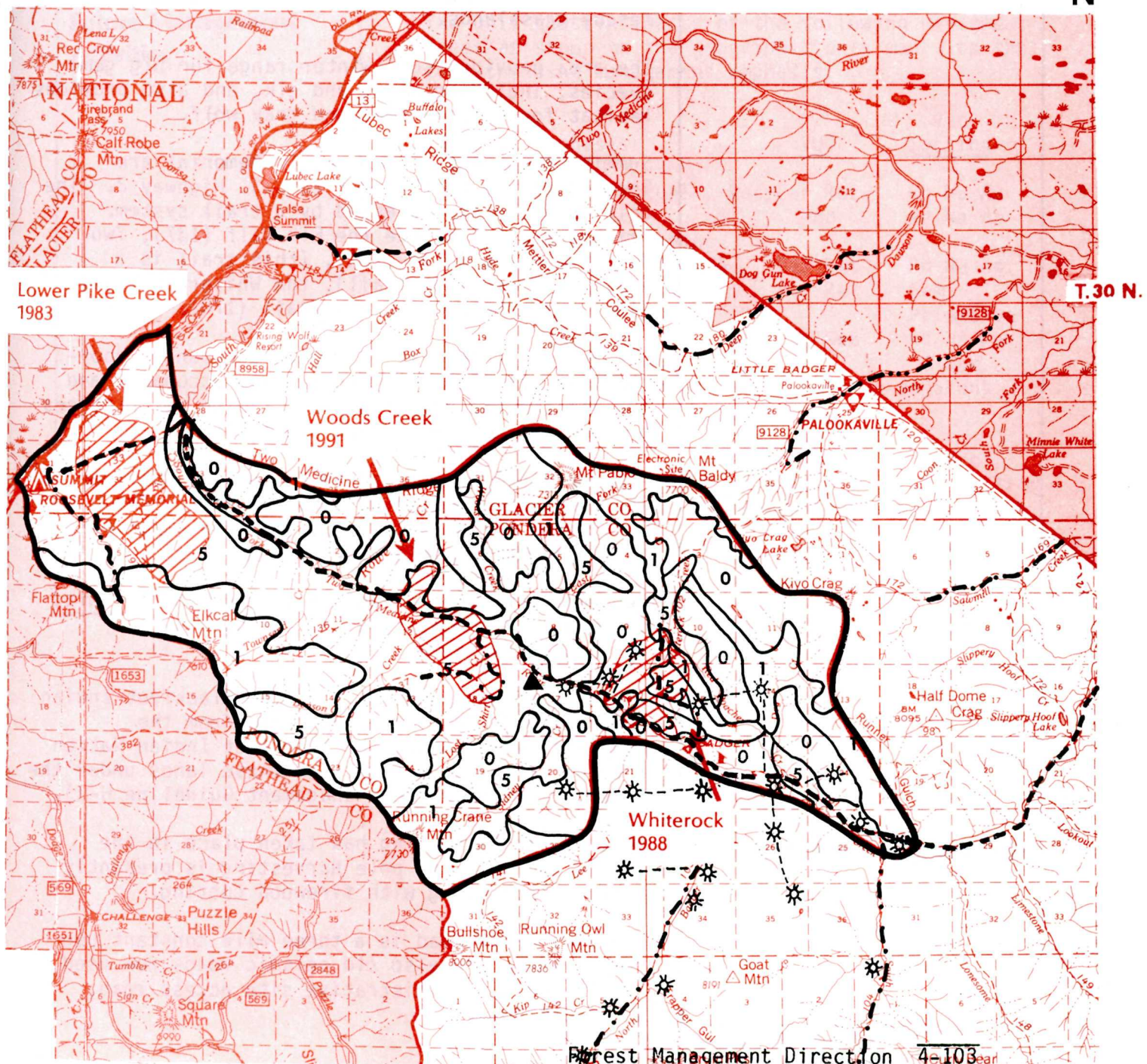
Oil & Gas Lease Stipulations

(Rocky Mountain Front only)

- 1 Stipulation 1 — no surface occupancy,
slopes 60
- 5 Stipulation 5 — limited surface use
unstable landtypes
- 0 No special stipulation
-  Gas Well
-  Local Roads
-  Gas Processing Facility

RM-1 Two Medicine Geographic Unit





TWO MEDICINE GEOGRAPHIC UNIT DESCRIPTION

Map Number RM-1

The Two Medicine Management Geographic Unit (RM-1) includes the broad glacial valley of the South Fork of the Two Medicine River. Major tributaries to the Two Medicine include: Pine Creek, Woods Creek, and Whiterock Creeks. The Continental Divide forms the units western boundary. Glacier National Park forms the northern boundary and the Two Medicine Ridge is the north and eastern boundary. Slopes in the unit are moderate and most landforms were formed by glacial erosion or deposition. Major vegetation types include lodgepole pine, subalpine fir, spruce, riparian vegetation, aspen groves, and fescue grasslands.

The area provides some winter range for big game species, including moose and elk, and also provides habitat for grizzly bear and gray wolf.

Summit Campground and Roosevelt Memorial are located to the north, next to U.S. Highway 2. The unit is presently accessed by a trail system. Primary trails include the Elk Calf (137), Two Medicine-Heart Butte (101), (this trail is a National Recreation Trail), the Whiterock Trail (102), and the Woods Creek Trail (170).

Oil and gas potential is high. Occupancy opportunities are limited by no-surface occupancy and the limited use stipulations. Timing restrictions protect big game wintering areas.

A major pipeline and transmission line corridor is located south of Glacier National Park. The Burlington Northern Railroad mainline parallels this corridor as does U.S. Highway 2.

Two administrative sites are located in the unit; the Badger Guard Station and the Summit Administrative Area.

These lands were once part of the Blackfeet Indian Reservation. This area was ceded from the Reservation in 1896. The Blackfeet Indian Nation retains certain use rights on these lands under the Agreement of 1896 (see Management Guideline H-1).

Some timber harvesting has taken place in the 1960's and post and pole harvesting is presently taking place along with firewood cutting.

The Pike Creek Road is a three mile constant use road. There are also old seismic roads now used as trails and an administrative site access road, Whiterock Road.

Past Management Activities

Future Management Activities

A 720-acre fire burned in Pike Creek in 1972 while the entire area was burned between 1889 and 1910. The Lubec-Badger range allotment has been grazed in the past and continues in use.

A 40-acre unit was burned at Mt. Baldy in the spring of 1981 for wildlife habitat improvement.

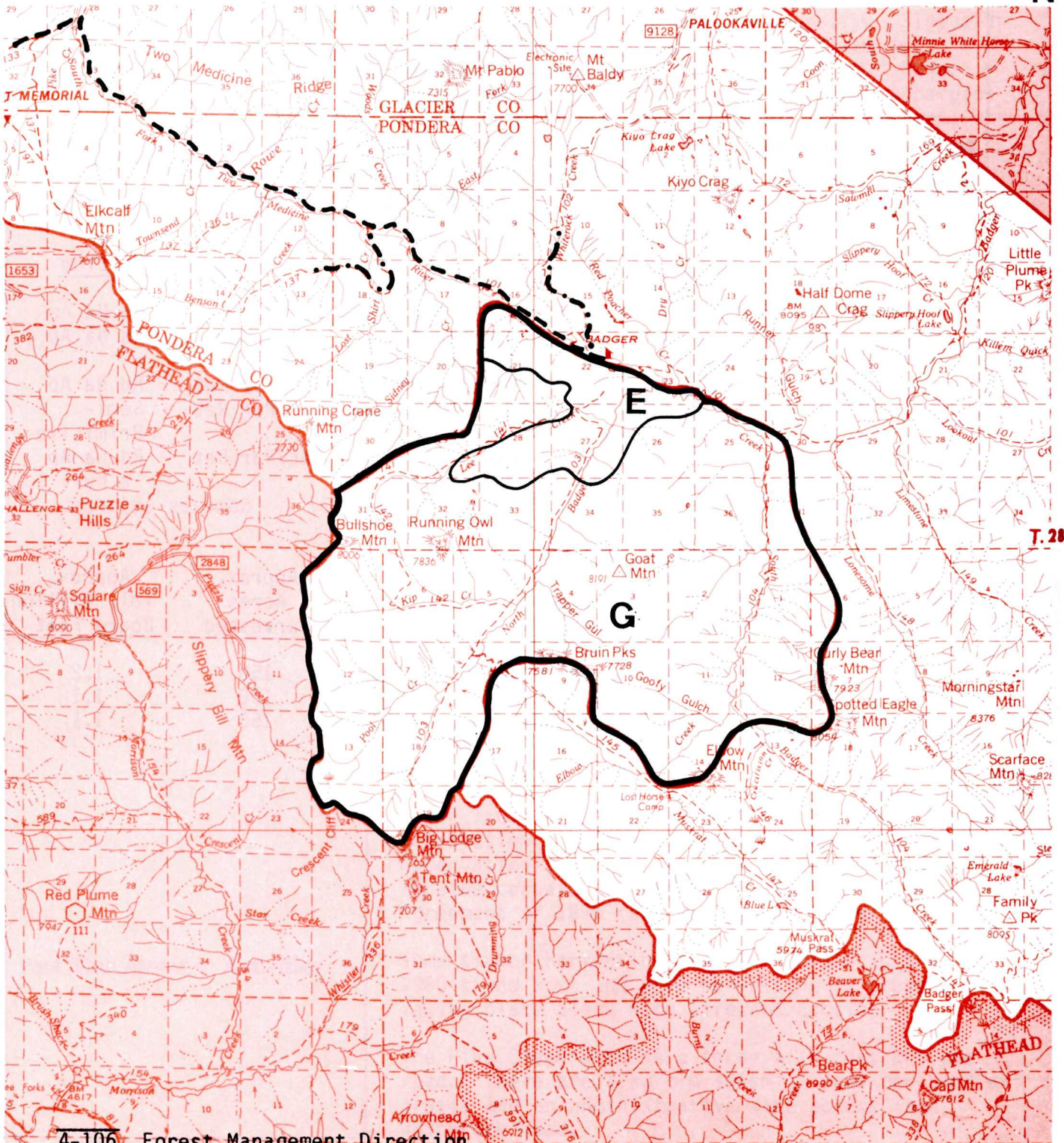
Seismic exploration for oil and gas has taken place at various times in the past and is currently on-going in the unit.

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
A	Timber/Visual	Ret/Par Ret	Rd Na Ap
B	Timber or Timber/Grazing	Mod	Rd Na Ap
E	Grazing/Wildlife	Par Ret	Rd Na Ap
G	Semi-Primitive Recreation	Par Ret	Semi- Primitive
H	Developed Recreation	Ret/Par Ret	Rd Na Ap & Rur
R	Riparian Zone	Same as	adjacent

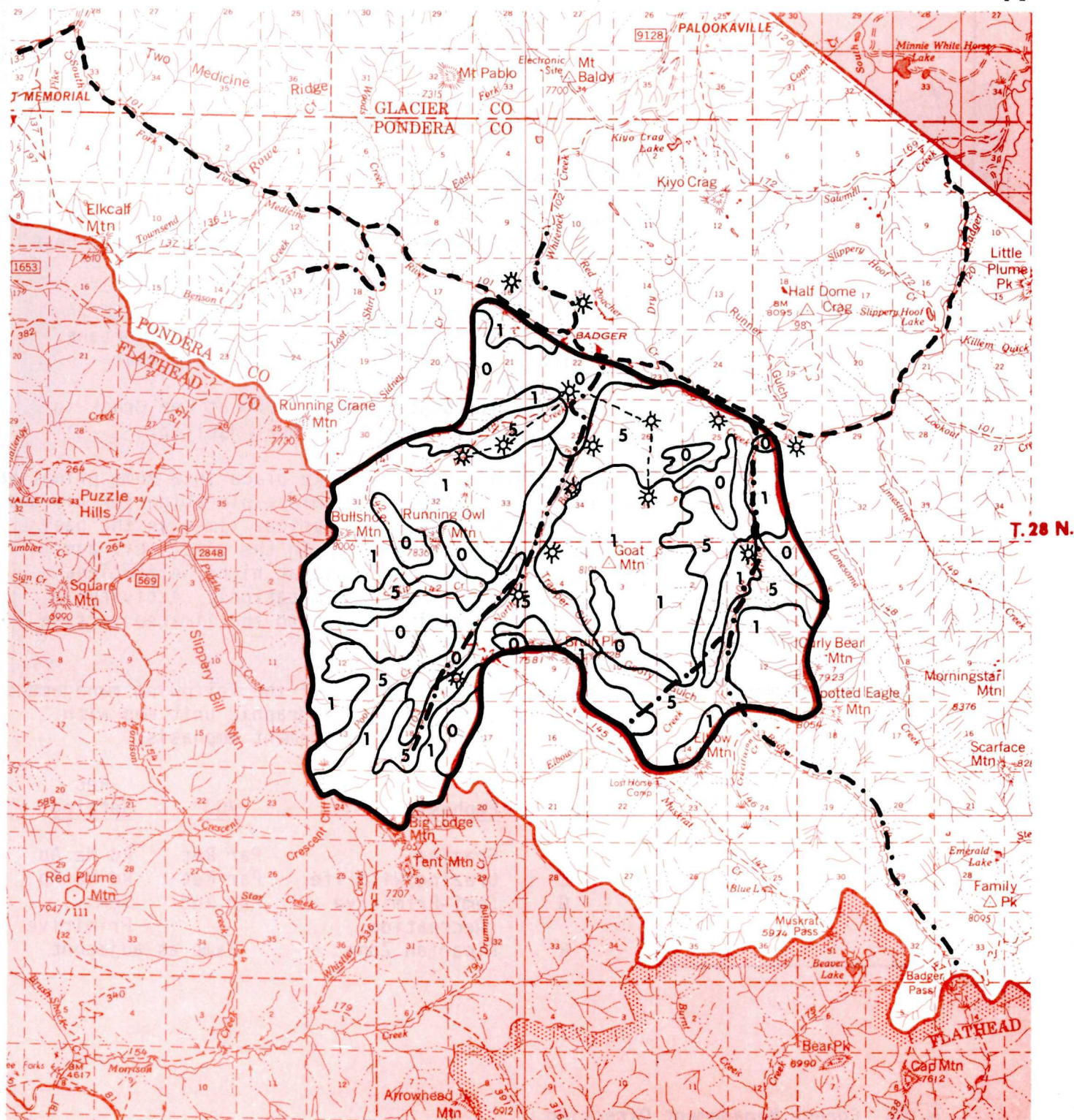
<u>Timber Sales</u>	<u>Year</u>	<u>Approx. Acres Harvested</u>	<u>Approx. Vol. Million Board Feet</u>
Lower Pike Cr.	1983	150	1.2
Whiterock	1988	150	1.1
Wood Cr.	1991	150	1.1

RM-2 Badger Geographic Unit



4-106 Forest Management Direction

R. 12 W.



BADGER GEOGRAPHIC UNIT DESCRIPTION

Map Number RM-2

Past Management Activities

Future Management Activities

The Badger Geographic Unit (RM-2) includes the North Fork Badger and South Fork Badger drainages, and Goat, Bullshoe, Running Owl, and Big Lodge Mountains. The unit has moderately steep slopes with lodgepole pine, alder, rough fescue meadows, and small amounts of white bark pine and spruce.

The unit has no campgrounds; three trails, North Badger Trail (103), South Badger Trail (104), and Elbow Creek (145) provide dispersed recreation in the unit.

Oil and gas potential is high.

The Badger range allotment has been grazed in the past and continues in use, but no timber has been harvested. The unit was burned in the 1890 to 1910 fires. Old seismic roads were closed in the past and now are used as trails.

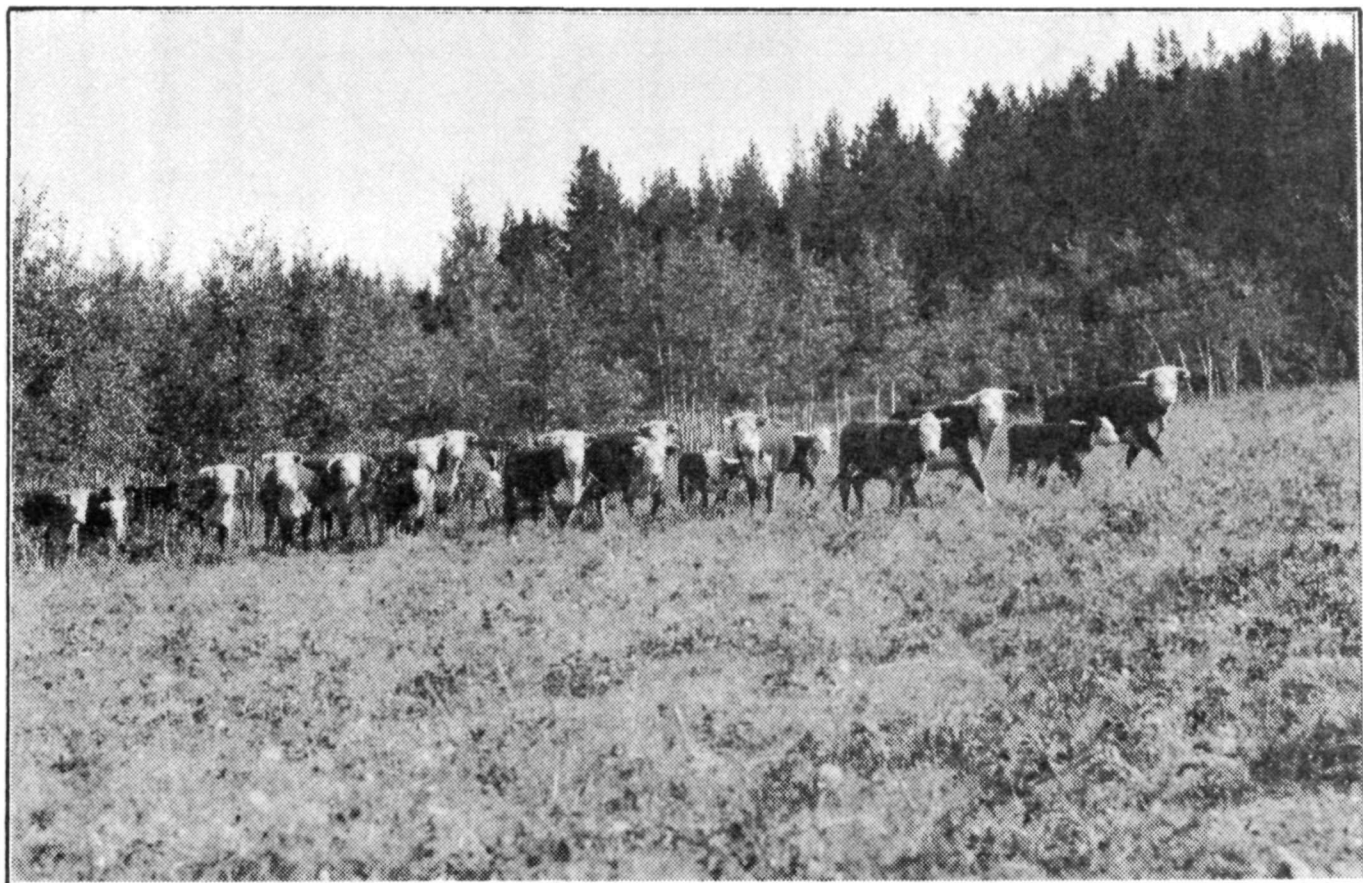
The area provides some winter range for elk and moose. Portions of the unit provide important habitat for mountain goat and grizzly bear.

A fence was constructed in 1980 at Lee Creek to protect important grizzly bear habitat.

Recreation activities take place in a semi-primitive motorized setting. Seismic exploration for oil and gas has taken place at various times in the past and is currently ongoing in the unit. Oil and gas drilling is precluded at higher elevations by slope and landtype limitations. Activity in valley bottoms is subject to the limited surface use stipulation.

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis.

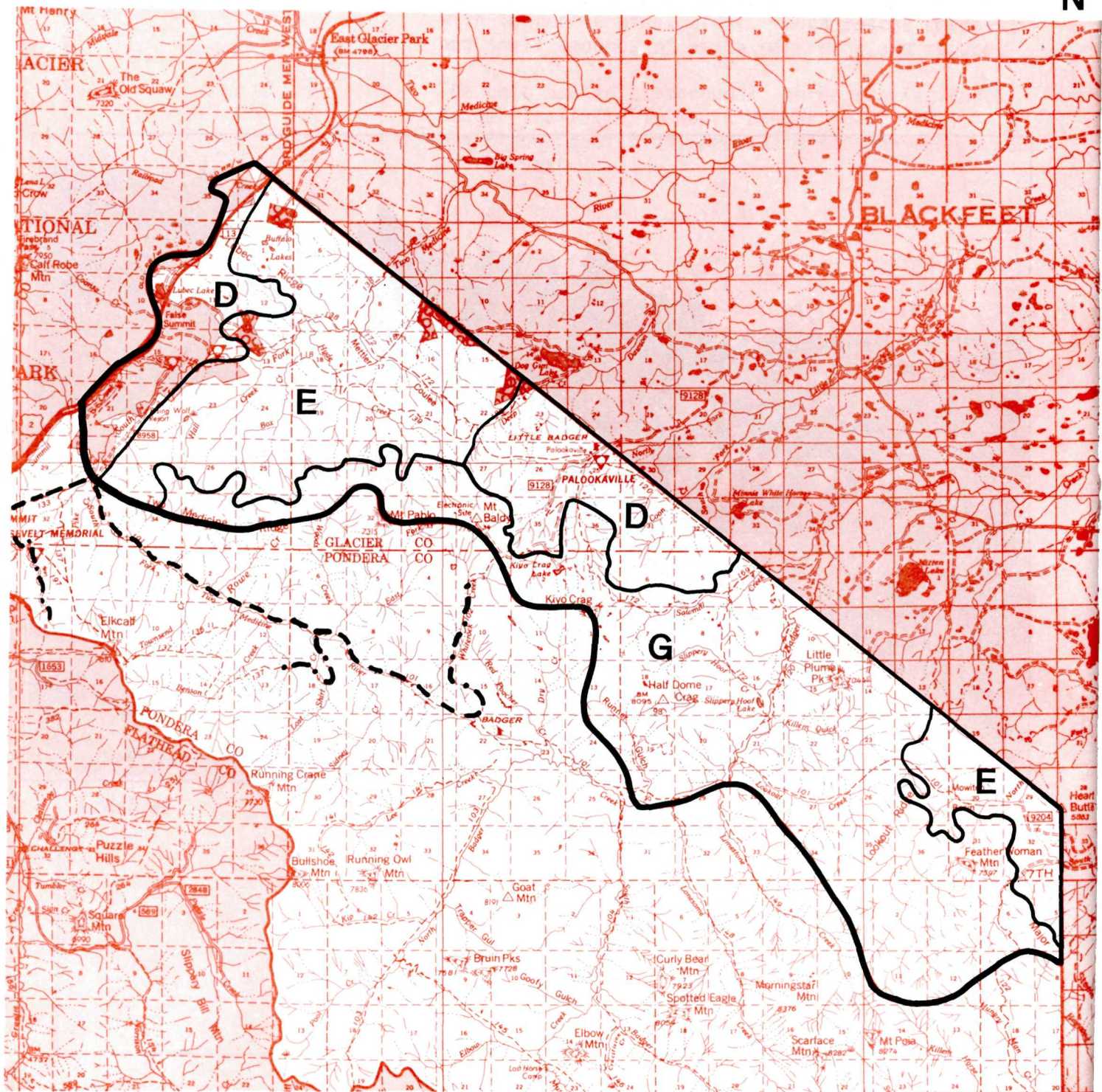
Mgmt Area	Emphasis	VQO	Rec Setting
D	Grazing	Par Ret	Rd Na Ap
E	Grazing/Wildlife	Par Ret	Rd Na Ap
G	Semi-Primitive Recreation	Par Ret	Semi- Primitive
R	Riparian Zone	Same as	adjacent



CATTLE GRAZING IN THE ROCKY MOUNTAINS.

RM-3

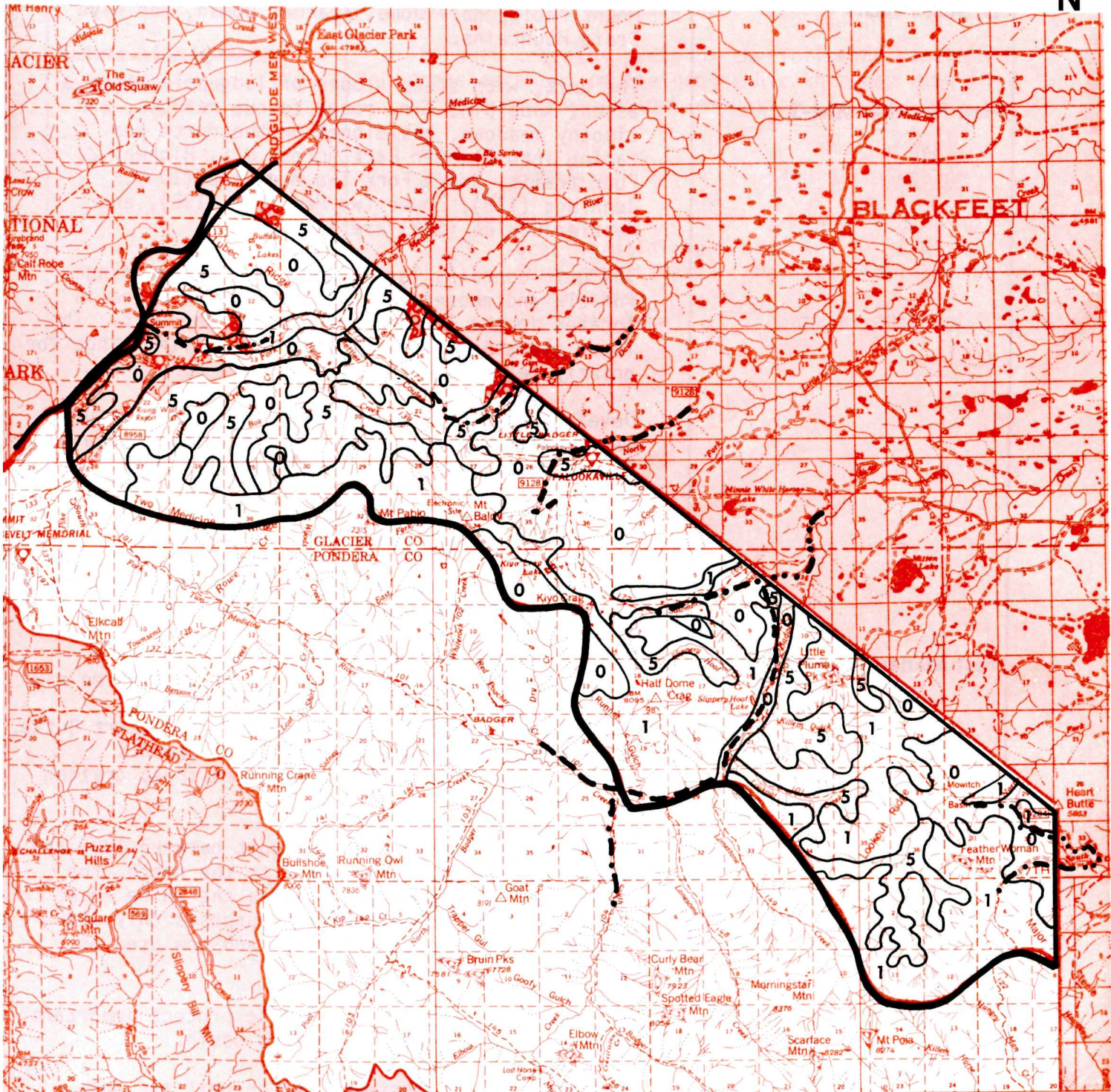
Lubec — Heart Butte
Geographic Unit



R.12 W.

RM-3

Lubec — Heart Butte
Geographic Unit



R.12 W.

LUBEC — HEART BUTTE GEOGRAPHIC UNIT DESCRIPTION

Map Number RM-3

Past Management Activities

The Lubec-Heart Butte Geographic Unit (RM-3) contains the South Fork of Two Medicine River, Badger Creek, and Little Badger Creek drainages and Baldy, Mount Pablo, Half Dome, Feather Woman, and Kiyo Craig Mountains.

The unit, with steep slopes of lodgepole pine, aspen, subalpine fir, rough fescue meadows, and timothy meadows, has slopes on the north end facing into Glacier Park across U.S. Highway 2. Four trails, South Fork Two Medicine (101), Jennings (118), Lower Two Medicine (138), and Mettler Coulee (172) are in the unit.

The unit contains large amounts of winter range for elk and moose. A major elk calving area is located in the northern portion of the unit. The lower elevations provide important spring range for grizzly bear.

Developments include two powerlines and a natural gas pipeline, a microwave site on Baldy Mountain, and an administrative site on Little Badger.

These lands were once part of the Blackfeet Indian Reservation. This area was ceded from the Reservation in 1896. The Blackfeet Indian Nation retains certain use rights on these lands under the Agreement of 1896 (see Management Guideline H-1).

Some firewood cutting and minor post and pole cutting has taken place, as well as grazing on six range allotments, Lubec-Badger, Box Creek, Hyde Creek, Little Badger, Sawmill, and Heart Butte. Grazing continues on five of the allotments with Little Badger being a deferred sheep grazing allotment.

Fires burned portions of the unit between 1890 and 1910. Besides U.S. Highway 2 to the north, the only road in or near the area is the White Rock road, used for administrative purposes only and seismic roads closed after use and now used as trails.

Fencing was completed in 1978 to protect important grizzly bear habitat in Mowitch Basin.

There are some homesteads in the unit and some flood restoration work has been done. Oil and gas potential is high. Occupancy opportunities exist; there are timing restrictions on the big game wintering areas.

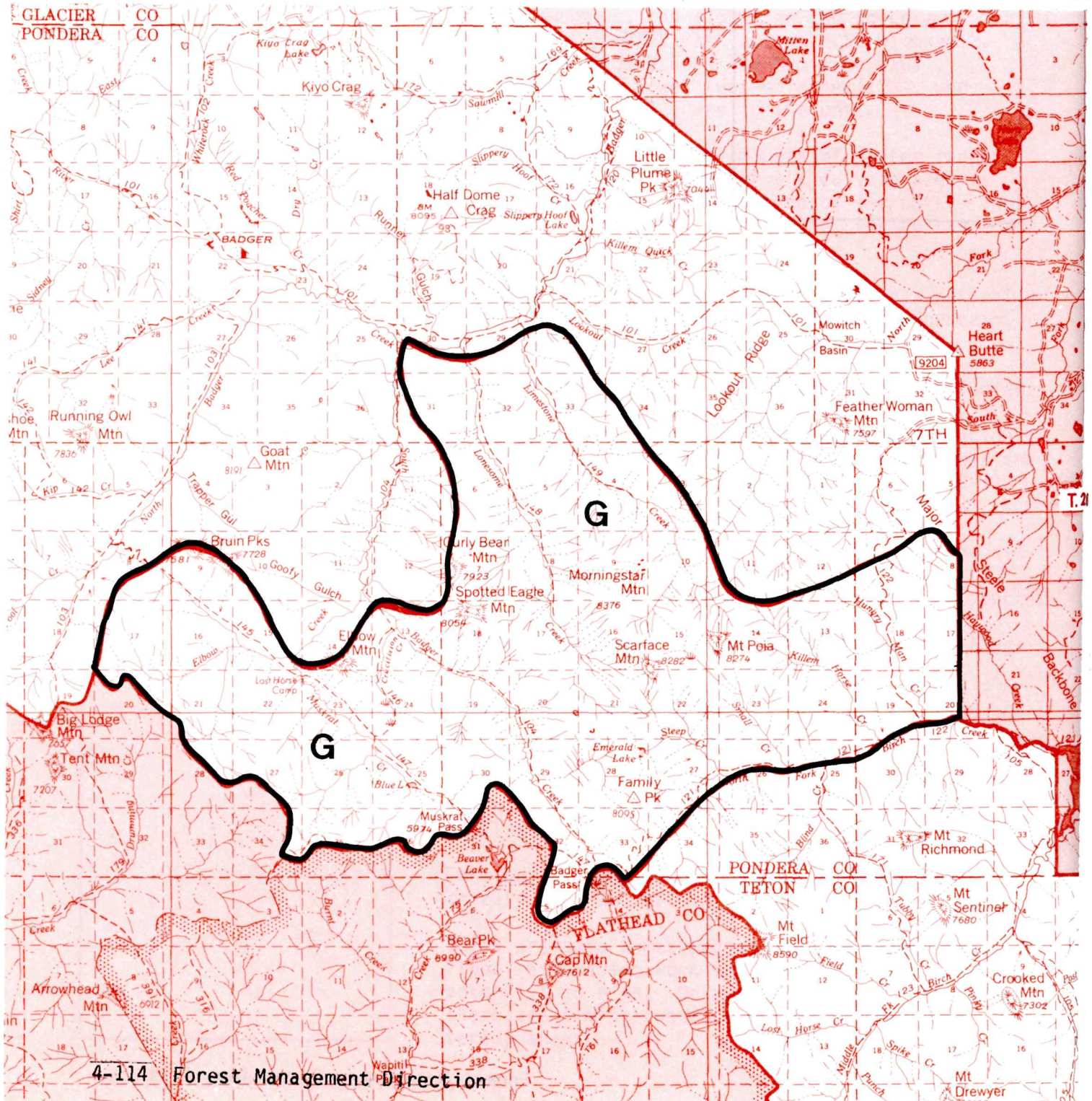
Future Management Activities

Seismic exploration for oil and gas has taken place at various times in the past and is currently ongoing in the unit. Oil and gas drilling has taken place in the past near Polookville.

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
D	Grazing	Par Ret	Rd Na Ap
E	Grazing/Wildlife	Par Ret	Rd Na Ap
G	Semi-Primitive Recreation	Par Ret	Semi-Primitive
R	Riparian Zone	Same as adjacent	

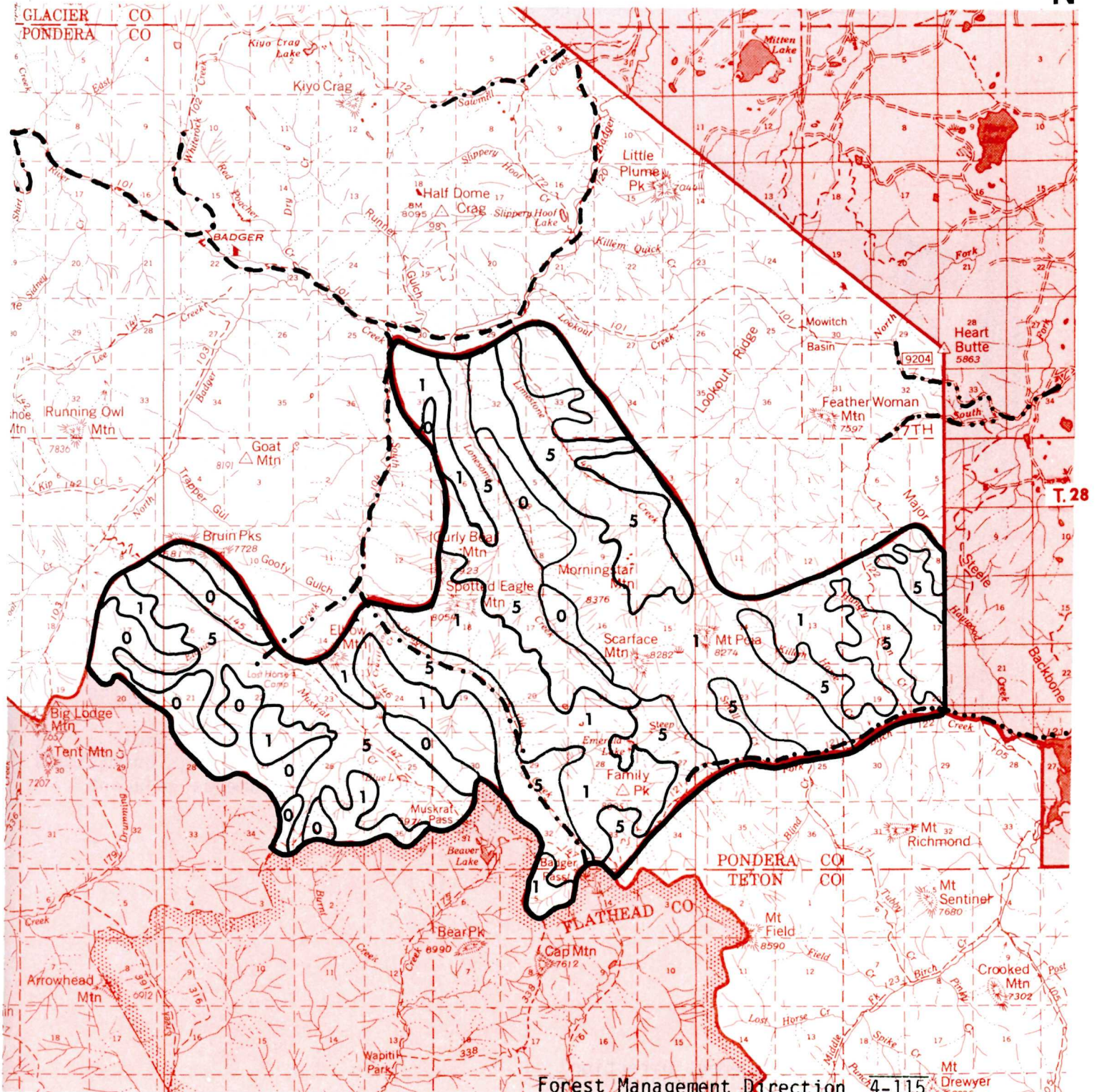
RM-4 Birch Creek Geographic Unit



4-114 Forest Management Direction

R. 11 W.

RM-4 Birch Creek Geographic Unit



Forest Management Direction 4-115

R.11 W.

BIRCH CREEK GEOGRAPHIC UNIT DESCRIPTION

Map Number RM-4

Past Management Activities

Future Management Activities

The Birch Creek Geographic Unit (RM-4) includes the South Fork Badger and North Fork Birch Creek drainages and Curly Bear, Scarface, Poia, Morningstar, Spotted Eagle Mountains, and Family Peak.

Steep slopes have subalpine fir with some lodgepole pine and spruce. The unit contains some winter range for mountain goats inhabit the steep slopes in large enough numbers to be hunted.

There are no campgrounds. The North Fork Birch (121), Muskrat Creek (147), and South Fork Badger (104) trails cross the unit.

Oil and gas potential is high. There are limited opportunities for surface occupancy. These are mainly at the lower elevations and are subject to the limited surface use stipulation.

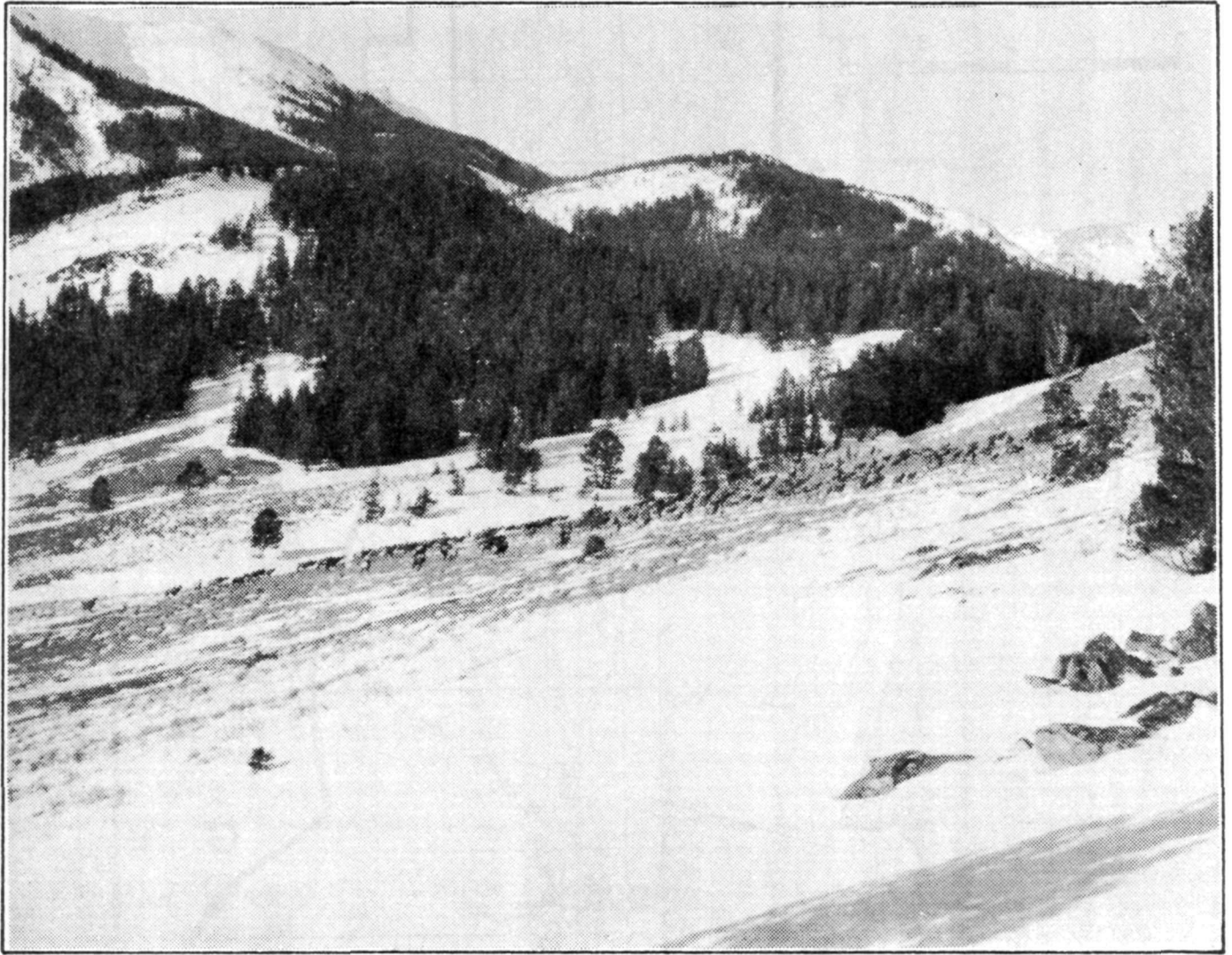
These lands were once part of the Blackfeet Indian Reservation. This area was ceded from the Reservation in 1896. The Blackfeet Indian Nation retains certain use rights on these lands under the Agreement of 1896 (see Management Guideline II-1).

One sheep allotment, Hungry Man, now closed, was used in the past. No timber has been harvested. Part of the unit was burned in the Hungry Man Creek fire in 1941.

Seismic exploration has taken place in the past and is presently taking place.

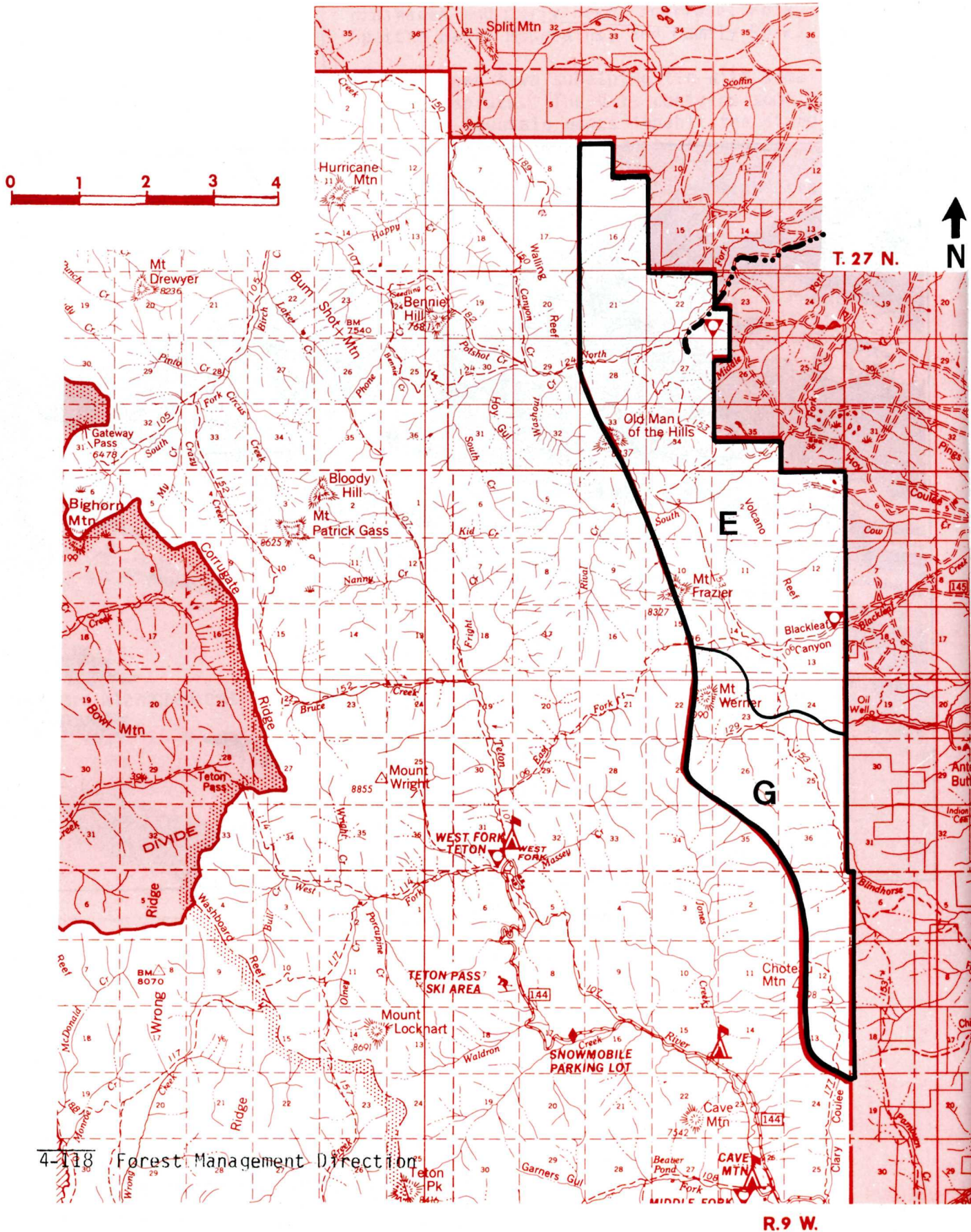
The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQQ</u>	<u>Rec Setting</u>
G	Semi-Primitive Recreation	Par Ret	Semi- Primitive
R	Riparian Zone	Same as adjacent	

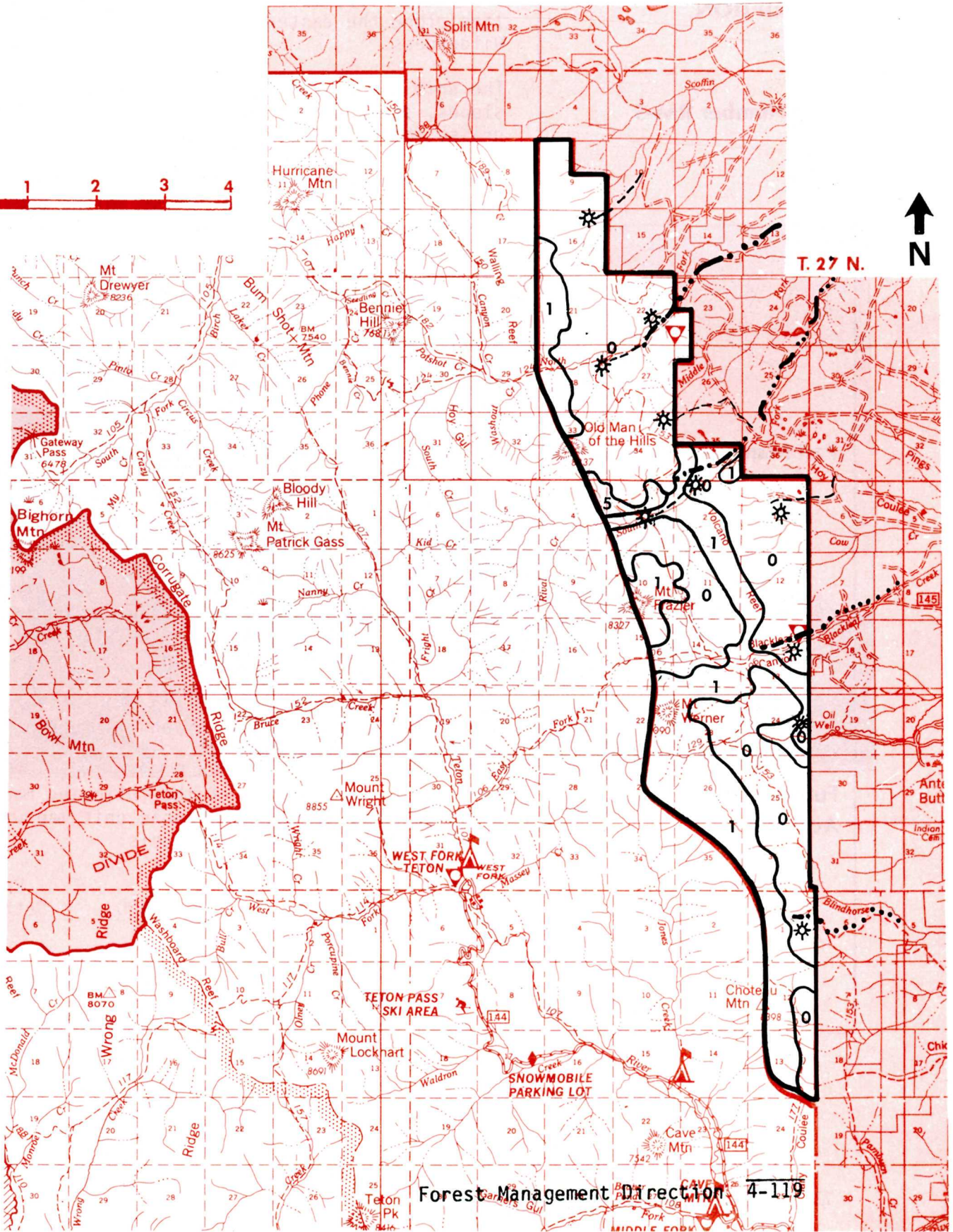


ELK WINTERING ON FORD PLATEAU IN
THE ROCKY MOUNTAINS.

RM-5 Blackleaf — Dupuyer Geographic Unit



RM-5 Blackleaf — Dupuyer Geographic Unit



BLACKLEAF — DUPUYER GEOGRAPHIC UNIT DESCRIPTION

Map Number RM-5

Past Management Activities

Future Management Activities

The Blackleaf-Dupuyer Geographic Unit (RM-5) includes the middle portions of the Blackleaf-Dupuyer, Muddy, and Cow Creek drainages. The area lies along the eastern edge of the Bob Marshall Wilderness.

The unit has canyon lands with moderate to gentle slopes, steep slopes and reefs higher up, and grassy foothills away from the mountains.

The Dupuyer drainage has four wheel drive trails and roads. The unit provides access to the Bob Marshall including North Fork Dupuyer (124) and 124) and Blackleaf (106) trails.

The northern portion of the unit provides winter range for elk, bighorn sheep, and mule deer. Elk calving takes place in the Cow Creek and Walling Reef areas. Important grizzly bear spring range is found along the Forest boundary. Much of the unit provides habitat for mountain goat.

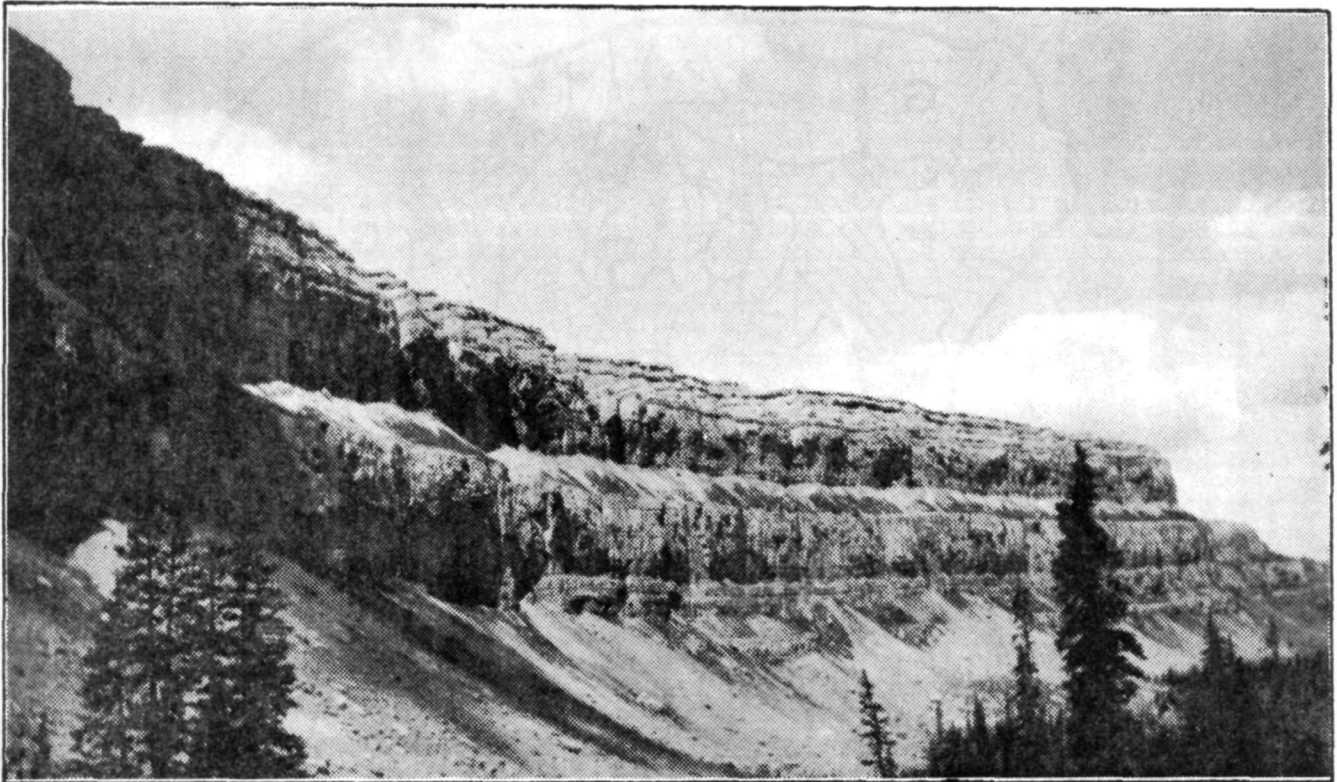
Two wells have been drilled in the past in Blackleaf Canyon. One is capable of natural gas production. The well is expected to go into production in the summer of 1982. Five shut-in gas wells are located outside the Forest between Muddy Creek and Blackleaf Creek.

Additional drilling permits are expected in the future. Surface opportunities exist. There are big game wintering restrictions.

Seismic exploration for oil and gas has taken place at various times in the past and is currently ongoing in the unit.

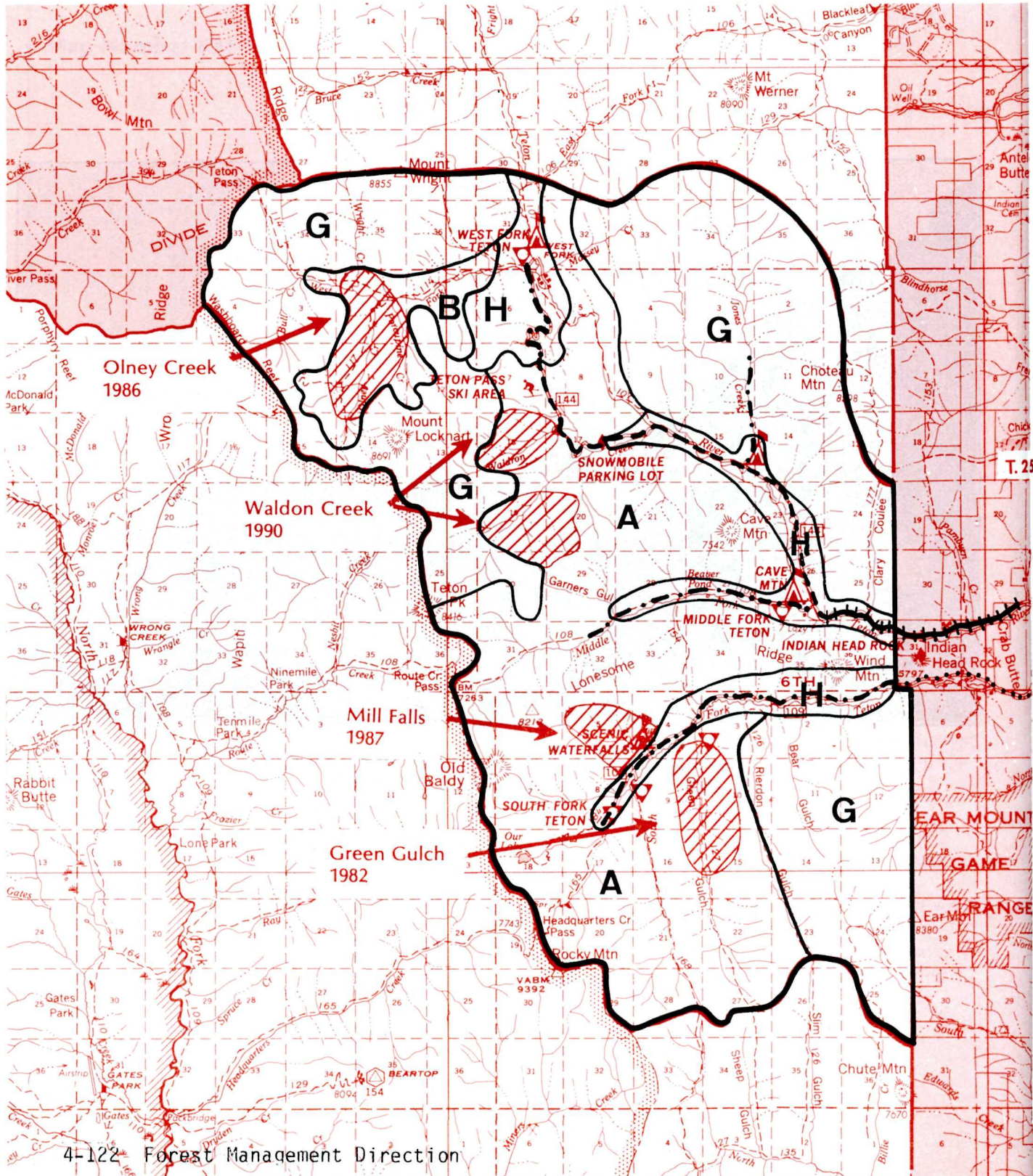
The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
E	Grazing/Wildlife	Par Ret	Rd Na Ap
G	Semi-Primitive Recreation	Par Ret	Semi-Primitive
R	Riparian Zone	same as adjacent	

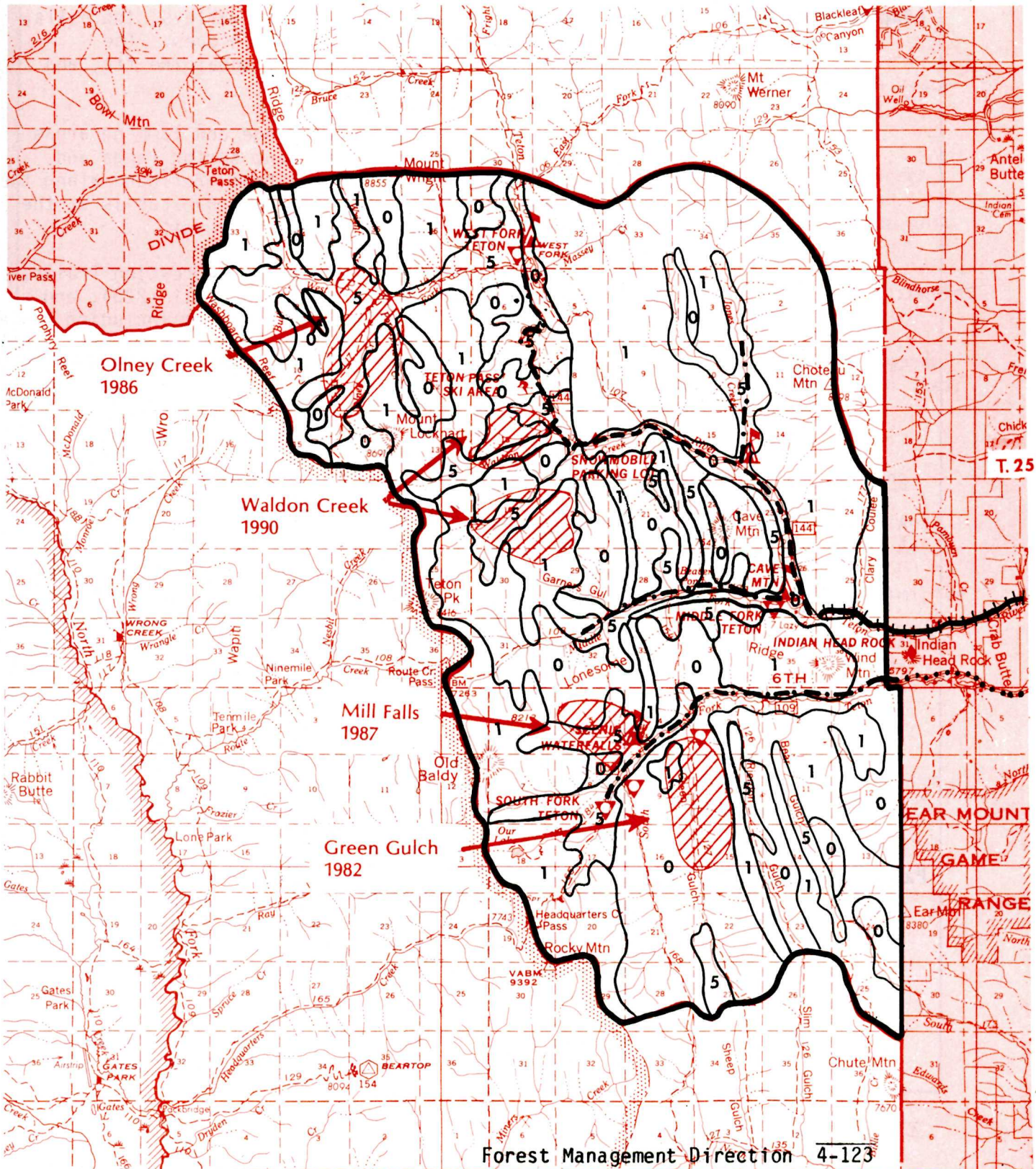


CHINESE WALL BORDERING THE BOB MARSHALL
WILDERNESS IN THE ROCKY MOUNTAINS.

RM-6 Teton Geographic Unit



RM-6 Teton Geographic Unit



TETON GEOGRAPHIC UNIT DESCRIPTION

Map Number RM-6

The Teton Geographical Unit (RM-6) includes the North, South, Middle, and West Forks of the Teton River and Rocky, Old Baldy, Choteau, and Ear Mountains. It is east and south of the Bob Marshall Wilderness.

The unit is made up of linear valleys, foothills, and steep reefs with forested slopes. The side hills have Douglas fir, subalpine fir, and lodgepole pine.

The unit contains winter range and lambing areas for bighorn sheep. Important spring range and breeding areas for grizzly bear are found along the Forest boundary. Mountain goat habitat is at the higher elevations throughout the unit.

The unit contains two National Recreation Trails, South Fork of Teton (168), Blacktail (223), and Jones Creek (107), and other trails including Route Creek (108), Our Lake (184), and Headquarters (165) provides access to the Bob Marshall Wilderness.

Trailheads for Green Gulch and Jones Creek trails are in the unit. The unit also has a number of developed campgrounds, Elko, West Fork, Cave Mountain, Mill Falls, and Waldron Creek, the Teton Pass Ski Area, and a snowmobiling parking lot near Teton Pass.

One guest ranch, the 7 Lazy P, is located in the unit and one, the Circle 8, is outside the National Forest. In addition, there are 9 summer homes in the Massey Creek drainage. Three administrative sites, West Fork, South Fork, and Ear Mountain are in the unit.

Oil and gas potential is high. Surface occupancy opportunities exist in the valley bottom. Slope and landtype limitations are present on valley sides and ridgetops. Activities in valley bottoms are subject to the limited surface use stipulation.

Past Management Activities

Timber harvesting took place in the 1960's in the North Fork Teton, Olney Creek, and Waldron Creek drainages. At present firewood, posts, poles, and houselogs are being cut in the South and North Forks of the Teton drainages along old clearcut units.

Two recent fires, the West Creek Fire in 1969 and the Massey Creek Fire in 1979, burned portions of the unit.

Future Management Activities

Grazing has taken place on the Middle Fork Teton, Jones Creek, Chicken Coulee, Deep Creek, and Blackleaf range allotments. Active range allotments include Deep Creek, Jones Creek, Chicken Coulee, and Middle Fork Teton and administrative pasture in the Jones Creek and West Fork of the Blackleaf allotment.

Seismic exploration for oil and gas has taken place at various times in the past and is currently ongoing.

Two roads, South Fork Teton River (109) and North Fork Teton River (144) access the area. Flood damaged streams and riparian vegetation in the unit in both 1964 and 1975.

Other activities presently taking place are fisheries improvement and a cross-country ski trail.

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

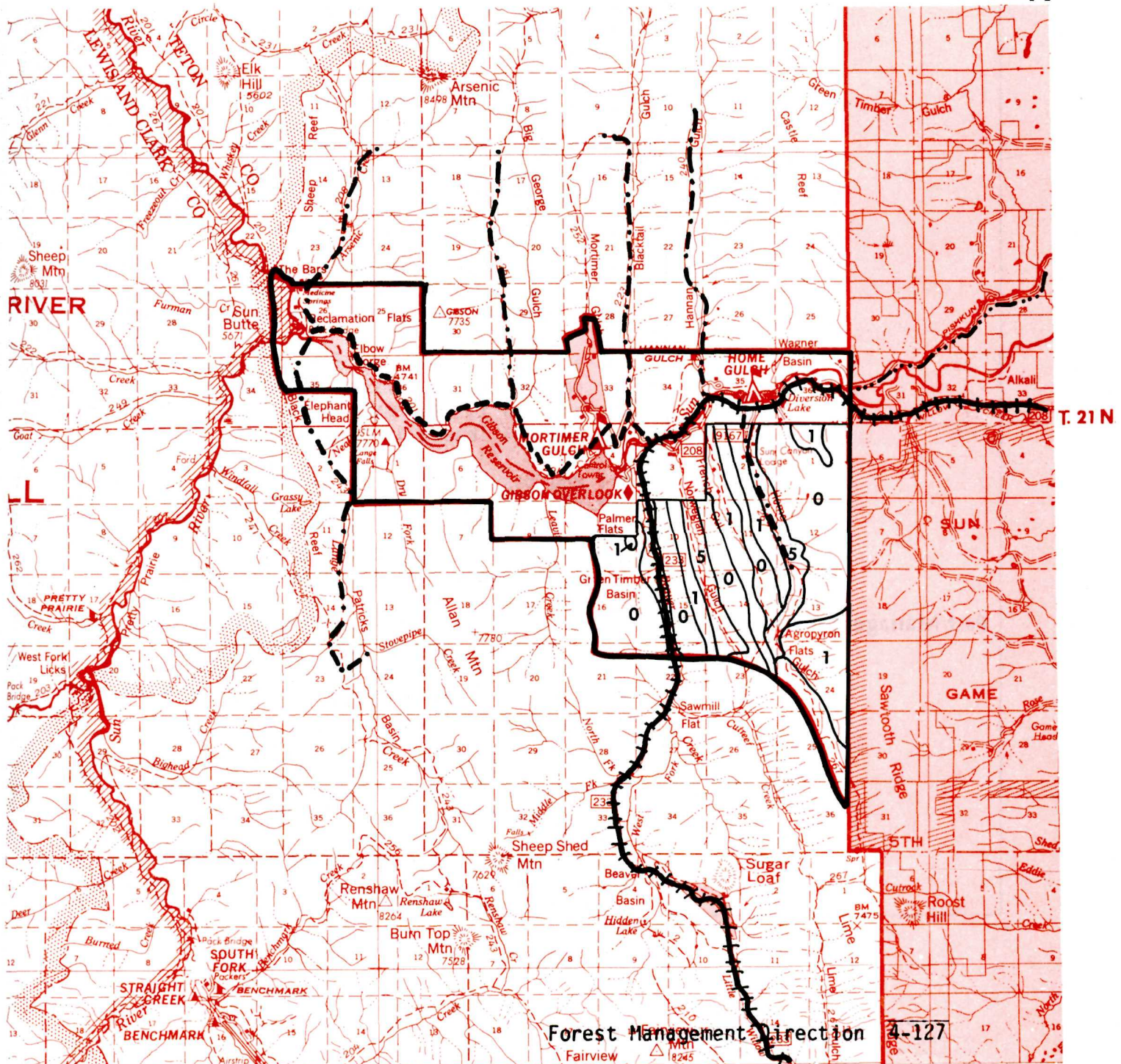
<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
A	Timber/Visual	Par Ret	Rd Na Ap
B	Timber or Timber/Grazing	Mod	Rd Na Ap
G	Semi-Primitive Recreation	Par Ret	Semi-Primitive
H	Developed Recreation	Ret/Par Ret	Rd Na Ap & Rur
R	Riparian Zone	Same as adjacent	

<u>Timber Sale</u>	<u>Year</u>	<u>Approx. Acres Harvested</u>	<u>Approx. Vol. Million Board Feet</u>
Green Gulch	1982	160	1.3
Olney Creek	1986	250	2.0
Mill Falls	1987	125	1.1
Waldon Creek	1990	150	1.1

Diagram of a 5m beam with a uniformly distributed load of 2 kN/m. The beam is divided into four segments of 1m each, labeled 0, 1, 2, 3, and 4. A north arrow points upwards.



RM-7 Sun Canyon Geographic Unit



R. 9 W.

**SUN CANYON GEOGRAPHIC
UNIT DESCRIPTION****Map Number RM-7**

The Sun River Geographic Unit (RM-7) includes the Sun River Canyon, including Gibson Dam and Reservoir, and Diversion Dam and Lake.

The unit ranges from steep slopes of rock, scree, and with slopes of subalpine fir, Douglas fir, and lodgepole pine on north-south valleys with open fescue grasslands and spruce along flatter valley bottoms.

Highly important winter ranges for bighorn sheep, mule deer, whitetail deer, and elk occur in this unit. Several bighorn sheep lambing areas are also present.

Gibson Lake Trail (201), Blacktail (223), and one National Recreation Trail, Blacktail-South Fork of Teton (168), run through the area. Developed campgrounds and boat ramps are at Mortimer Gulch and Home Gulch and an administrative site is at Hannon Gulch.

There are a number of lodges and resorts in the unit, Triple J, Klicks upper and lower, Sun Canyon Lodge, Gibson Lake Lodge, and 52 summer homes.

The area around Gibson Reservoir has been withdrawn for reclamation purposes. The Bureau of Reclamation is responsible for recommendations on oil and gas leases in this area.

Oil and gas potential is high. Drilling for oil and gas is limited by slope and landtype on valley sides and ridgetops. Timing restrictions for big game wintering areas and migration routes will limit occupancy during critical times.

Past Management Activities

Besides the developed campgrounds and resorts, other past management activity has been timber harvest in the 1920's and 30's. Present harvest is limited to firewood and some small sales of posts, poles, and houselogs.

The only active grazing allotments are the Beaver Creek allotment and three packer allotments, Home Gulch, Sun Butte, and Mortimer Gulch.

Seismic exploration for oil and gas has taken place at various times in the past and is currently ongoing in the unit.

ROCKY MOUNTAINS

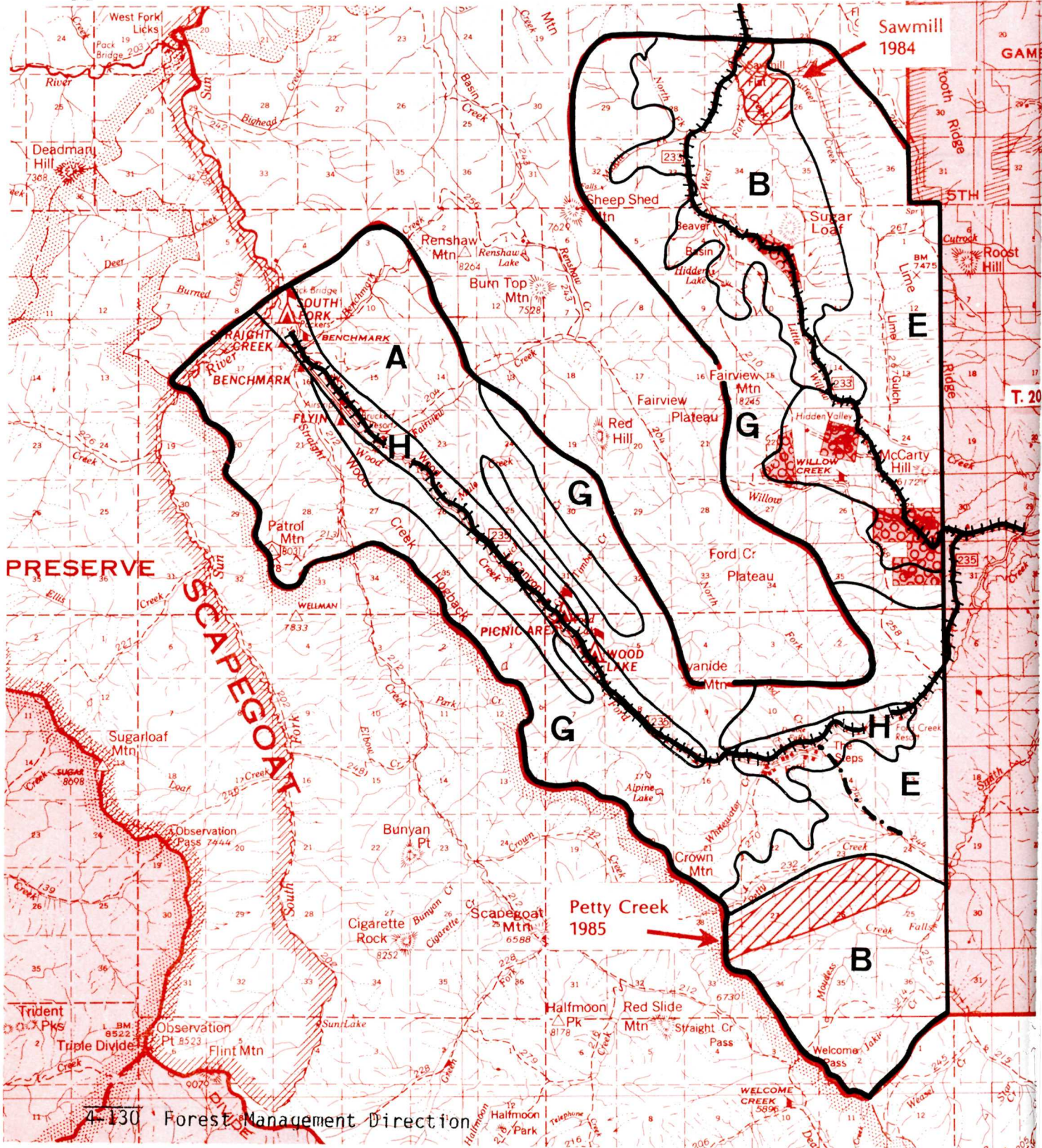
SUN CANYON

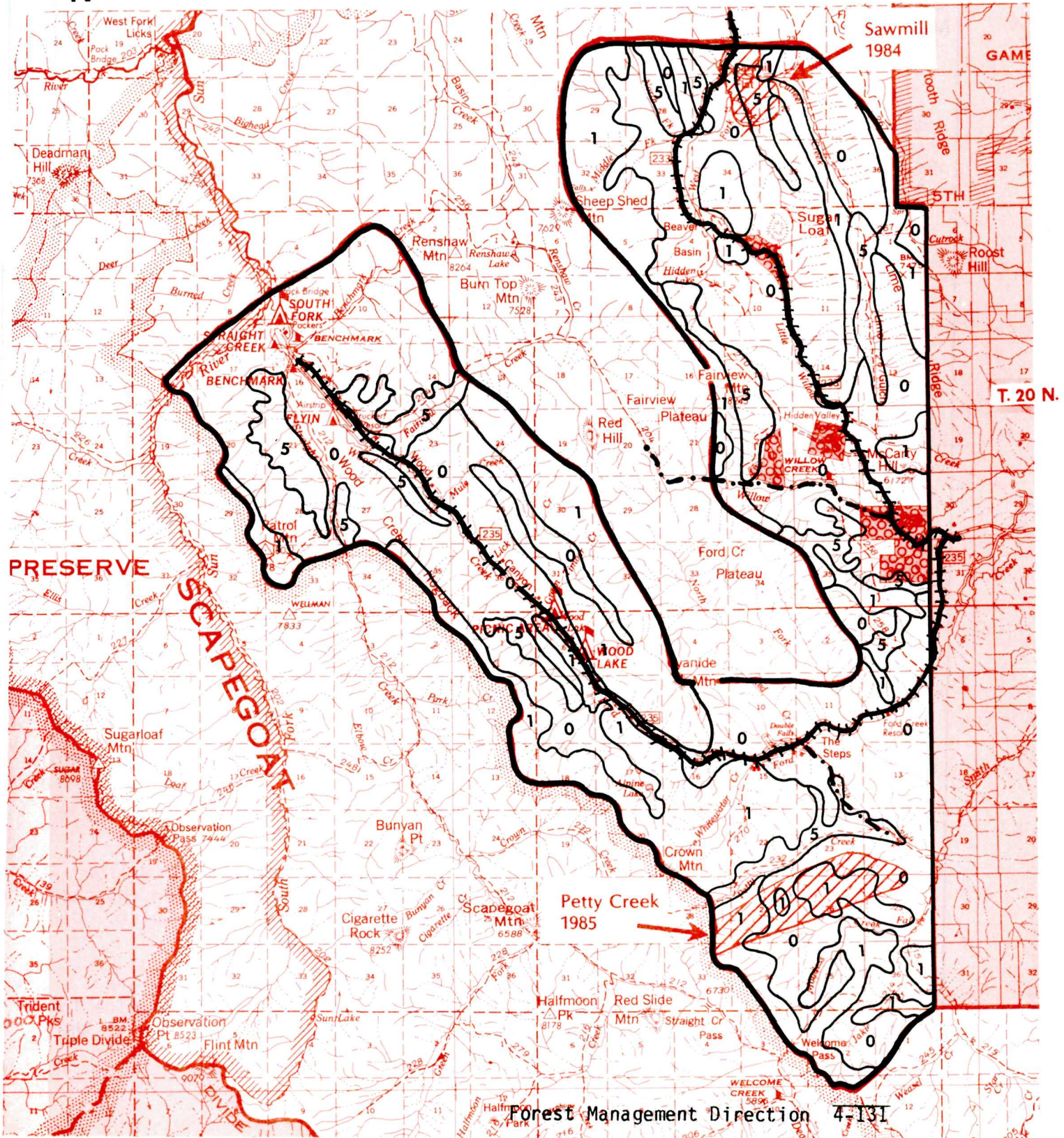
Future Management Activities

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
E	Grazing/Wildlife	Par Ret	Rd Na Ap
H	Developed Recreation	Ret/Par Ret	Rd Na Ap & Rur
R	Riparian Zone	Same as	adjacent

RM-8 Benchmark Willow Geographic Unit





BENCHMARK — WILLOW GEOGRAPHIC UNIT DESCRIPTION

Map Number RM-8

The Benchmark-Willow Geographic Unit (RM-8) includes Wood, Ford, Petty, Willow, and Beaver Creeks, and the head of the Smith Creek. It also includes Crown, Patrol, Renshaw, and Fairview Mountains.

Gentle to steep slopes of Douglas fir, spruce, sub-alpine fir, and lodgepole pine yield to open grassland on the lower slopes and north-south valley bottoms.

Some winter range and larger amounts of summer range are used by elk, bighorn sheep, and mule deer. Important spring range for grizzly bear is also present.

Three campgrounds, Benchmark, Wood Lake, and South Fork offer developed recreation. The Benchmark Airstrip is adjacent to Benchmark Campground. A number of the other developments within or adjacent to the management area include Ford Creek and Benchmark Wilderness Ranch, several private resorts, and Hidden Valley Ranch, a girl scout camp, Willow Creek and Benchmark administrative sites and pastures, Straight Creek packer corral and 54 summer homes.

Major trails include Fairview Trail (204), Willow Creek Trail (214), Straight Creek Trail (212), and a National Recreation Trail, Petty Creek Trail (232).

Oil and gas potential is high. Occupancy opportunities exist throughout the unit. Timing restrictions involving migration, lambing, and big game wintering will restrict activities during critical times. Oil and gas activities are subject to restrictions to protect recreation opportunities.

Past Management Activities

Some timber harvesting in Willow Creek drainage took place in the 1920's and 30's. A few small sales of posts, poles, houselogs, and sawlogs are being made in Beaver-Willow and Benchmark area.

Three grazing allotments, Beaver Creek, Willow Creek, and Smith Creek have been used in the past, as well as one packer allotment, Lime Gulch. Use continues on each of these allotments.

Beaver-Willow Road (233) has been closed and continues to be closed in the fall to provide for elk migration. The only other major road in the area is Benchmark Road (235).

Future Management Activities

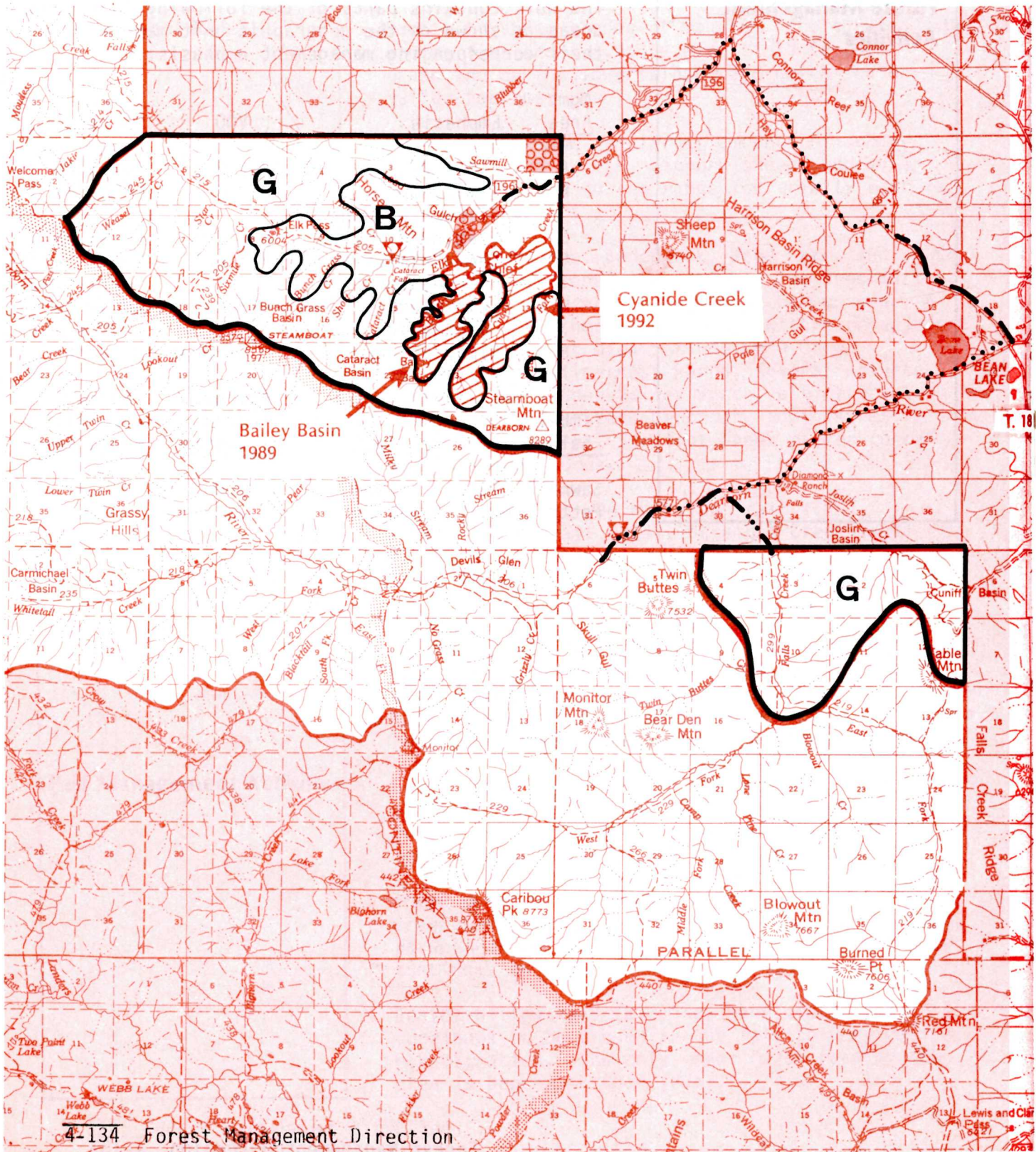
Seismic exploration for oil and gas has taken place at various times in past and is currently ongoing in the unit.

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

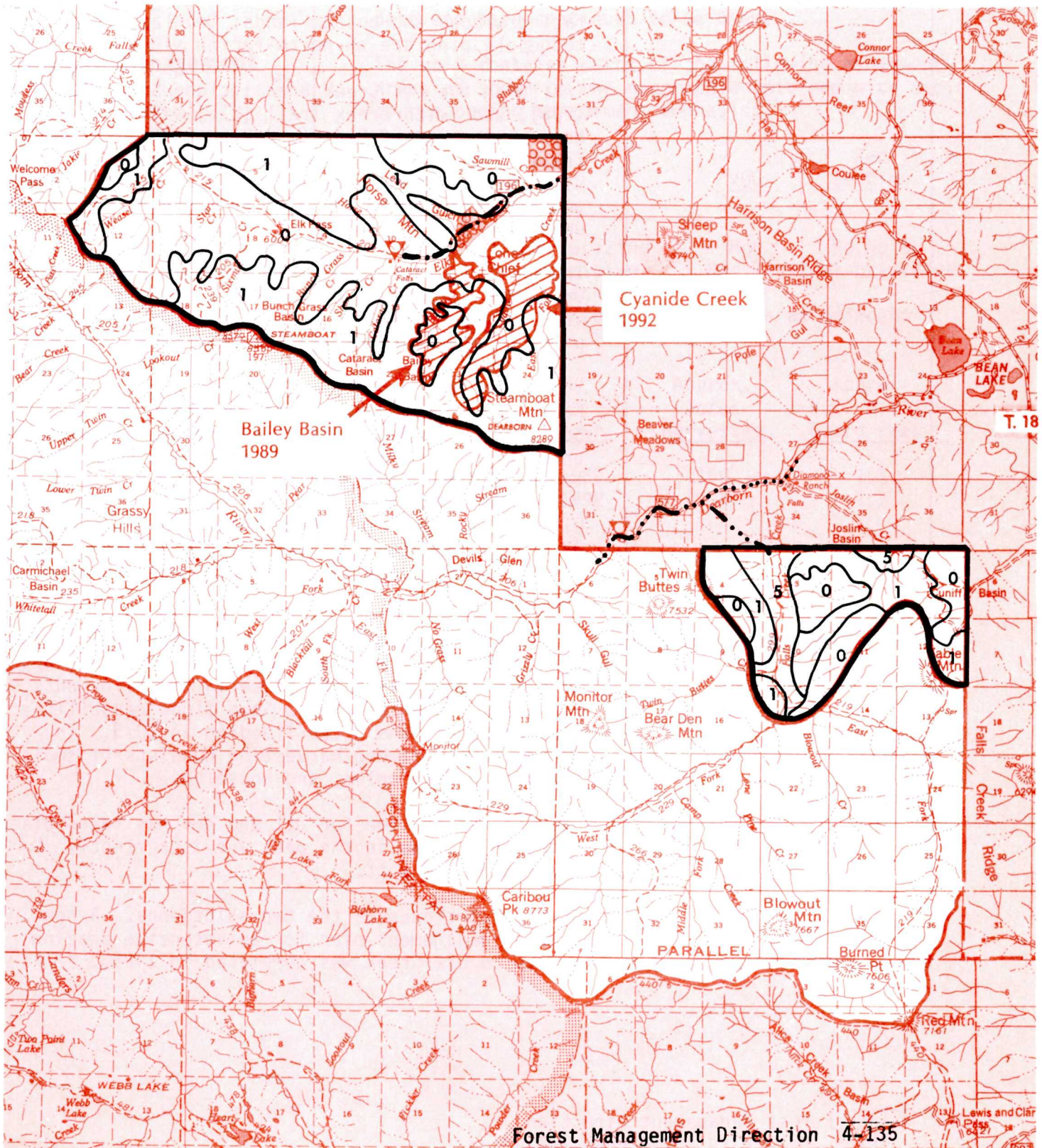
<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
A	Timber/Visual	Ret/Par Ret	Rd Na Ap
B	Timber or Timber/Grazing	Mod	Rd Na Ap
E	Grazing/Wildlife	Par Ret	Rd Na Ap
G	Semi-Primitive Recreation	Par Ret	Semi- Primitive
H	Developed Recreation	Ret/Par Ret	Rd Na Ap & Rur
R	Riparian Zone	Same as	adjacent
<u>Timber Sale</u>	<u>Year</u>	<u>Approx. Acres Harvested</u>	<u>Approx. Vol. Million Board Feet</u>
Sawmill Flats	1984	100	0.8
Petty Creek	1985	250	2.0

RM-9

Elk Creek — Falls Creek Geographic Unit



RM-9 Elk Creek — Falls Creek Geographic Unit



**ELK CREEK — FALLS CREEK
GEOGRAPHIC UNIT
DESCRIPTION****Map Number RM-9****Past Management Activities**

The Elk Creek - Falls Creek Geographic Unit (RM-9) includes two separate areas: Elk Creek, Sawmill, Cyanide, and Baily drainages, and the middle portion of the Falls Creek drainage.

Fescue grasslands are on gentle rolling south-facing slopes and bottom lands; Douglas fir and lodgepole pine are on north-facing slopes.

Trails in the Elk Creek area include Sixmile Trail (205), and Smith Creek Trail (215) with a trail-head at the end of Elk Creek Road (196). Sixmile Trail provides major access to the Scapegoat Wilderness. Sky Mountain Ranch and the Elk Creek administrative site and pasture are part of the unit.

The unit provides some winter range for mule deer. Important spring range for grizzly bear is present in Elk Creek. A fence was constructed in 1980 to protect important grizzly bear habitat.

The major trail in the Falls Creek area is the Falls Creek Trail (229) which accesses the Scapegoat Wilderness after leaving the geographical unit. The unit has no campgrounds or other developed recreation sites.

Oil and gas potential is high in both areas. Occupancy opportunities are limited by slope and timing restrictions involving big game migration routes.

In the Elk Creek area, timber was harvested in the Cyanide and Elk Creek drainages in the 1920's and 30's. Grazing has taken place in two allotments, Elk Creek and Smith Creek. Some flood rehabilitation work was done after flooding in 1975. In recent years, timber harvesting consists of small sales of posts, poles, and houselogs.

Seismic exploration for oil and gas has taken place at various times in the past and is currently ongoing in the unit.

Grazing continues on the two allotments. A new grazing management plan for an intensive grazing system on Elk Creek was completed in 1981.

Future Management Activities

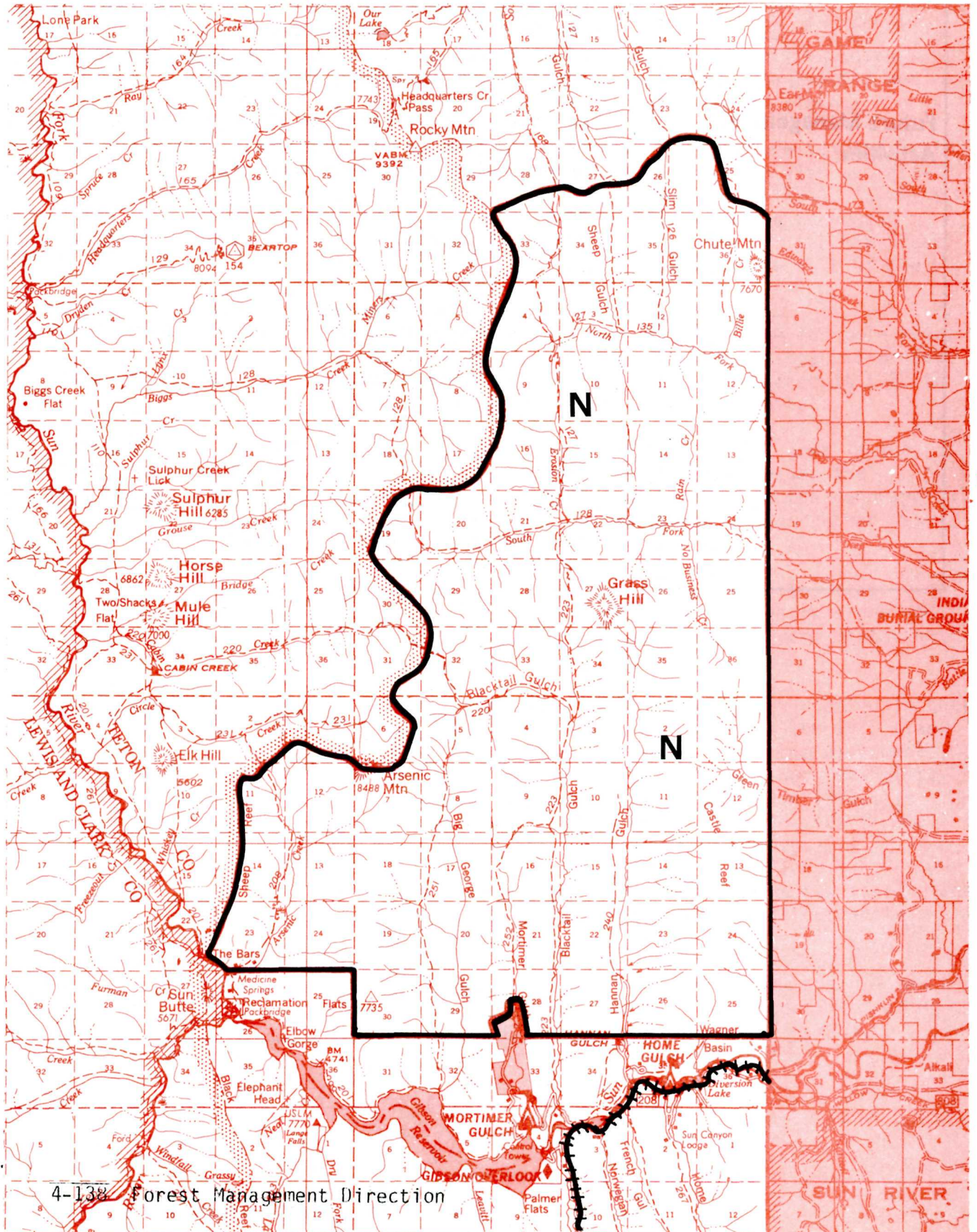
Some sawlogs and houselogs were harvested in Falls Creek and Cyanide Creek in the 1920's and 30's. A logging road went along Falls Creek, but has not been maintained. Two allotments, Main Falls Creek and East Fork Falls Creek, have been used in the past and have continued to be used.

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
B	Timber or Timber Grazing	Mod	Rd Na Ap
G	Semi-Primitive Recreation	Par Ret	Semi-Primitive
R	Riparian Zone	Same as adjacent	

<u>Timber Sale</u>	<u>Year</u>	<u>Approx. Acres Harvested</u>	<u>Approx. Vol. Million Board Feet</u>
Baily Basin	1989	150	1.1
Cynide Creek	1992	150	1.1

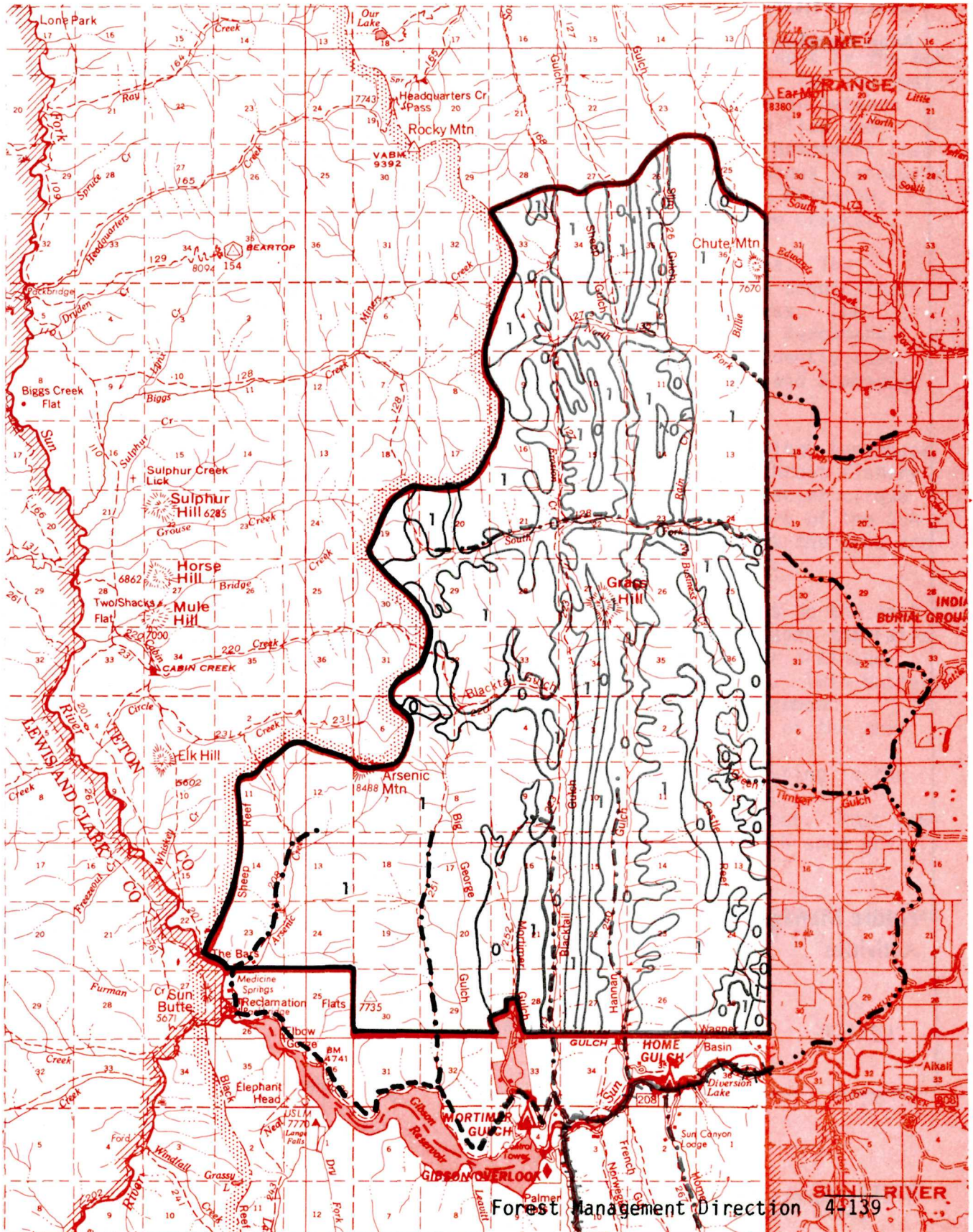
RM-10 Wilderness Study Deep Creek Geographic Unit



4-138 Forest Management Direction

R. 9 W.

RM-10
Wilderness Study
Deep Creek
Geographic Unit



T. 23 N.

**WILDERNESS STUDY
GEOGRAPHIC UNIT
DESCRIPTION**
Map Number RM-10

The Deep Creek-Reservoir North Geographic Unit (RM-10) was studied for wilderness classification under the RARE II (Roadless Area Review and Evaluation) study. The area receives primitive recreation use and has high wildlife values with such species as grizzly bear, elk, mountain goat, and bighorn sheep being present.

Deep Creek is situated in the overthrust belt, an extensive geologic structure in which major discoveries of oil and gas have been made in Canada, Utah, and Wyoming. The U.S. Geological Survey regards the entire study area as having a very good potential for natural gas. The RARE II study concluded that even though this area rated very high in wilderness attributes, a rational decision as to whether or not wilderness classification is in the national interest could not be made until the oil and gas resources of the area are determined. Further, RARE II established that any oil and gas leases issued in the area contain a stipulation which allows for exploration, but not production or field development until the area can be classified as wilderness or allocated to nonwilderness. It also directed that lease activities be conducted in a manner so that disturbed areas could be reclaimed and a wilderness option preserved. When exploration has defined the oil and gas resources of the area, the Forest Service must decide whether or not to recommend the area for wilderness classification. If the area is recommended for wilderness classification, production of oil and gas might still be allowed but under much more stringent surface protection requirements than if the area were not wilderness.

Oil and gas leases have been issued for the study area. These leases include 34,400 acres of no-surface occupancy and 7,560 acres of surface occupancy. Suit has been filed in U.S. District Court to review these leases.

**Future Management
Activities**

The unit contains the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
N	Wilderness Study	Par Ret	Semi Prim

**RECOMMENDED WILDERNESS
GEOGRAPHIC UNIT
DESCRIPTION**
Map Number RM-11

The Recommended Wilderness Geographic Unit (RM-11) includes the Renshaw and Silver King-Falls Creek Recommended Wilderness Areas.

The Renshaw area is bordered on the west by the Bob Marshall and Scapegoat Wildernesses. For the most part it is a high, rugged plateau lying between Gibson Reservoir to the north, the Willow and Beaver valleys to the east, and the Benchmark road corridor to the south. The mountaineous plateau is bisected by the headwaters of Lange, Fairview, Benchmark, Leavitt, and Little Willow Creeks.

There are miles of trails in the area. The Fairview-Patricks Basin Trails are a scenic route leading to the Bob Marshall Wilderness. The South Fork of the Sun River from the Benchmark access point is one of the most frequently used access trails into the Bob Marshall and Scapegoat Wildernesses.

Recreation use is primarily backpacking, horseback riding, and hunting. A limited cutthroat fishery is found in Renshaw Lake, a small glacier cirque lake in Lange Creek and the South Fork of the Sun River. Game species found throughout the area are elk, bighorn sheep, and grizzly bear.

The Silver-King Falls Creek area lies to the east of the Scapegoat Wilderness and includes the Falls Creek drainage and the Dearborn River drainage lying below the Scapegoat Wilderness. Twin Buttes, Corridor Peak, Burned Point, and Steamboat Mountain, all help define boundaries of the area.

The area is popular for cutthroat fishing in the Dearborn and Falls Creek, and hiking, horsebackriding, and hunting throughout. Most common game animals are elk and deer with some grizzly bear in the area.

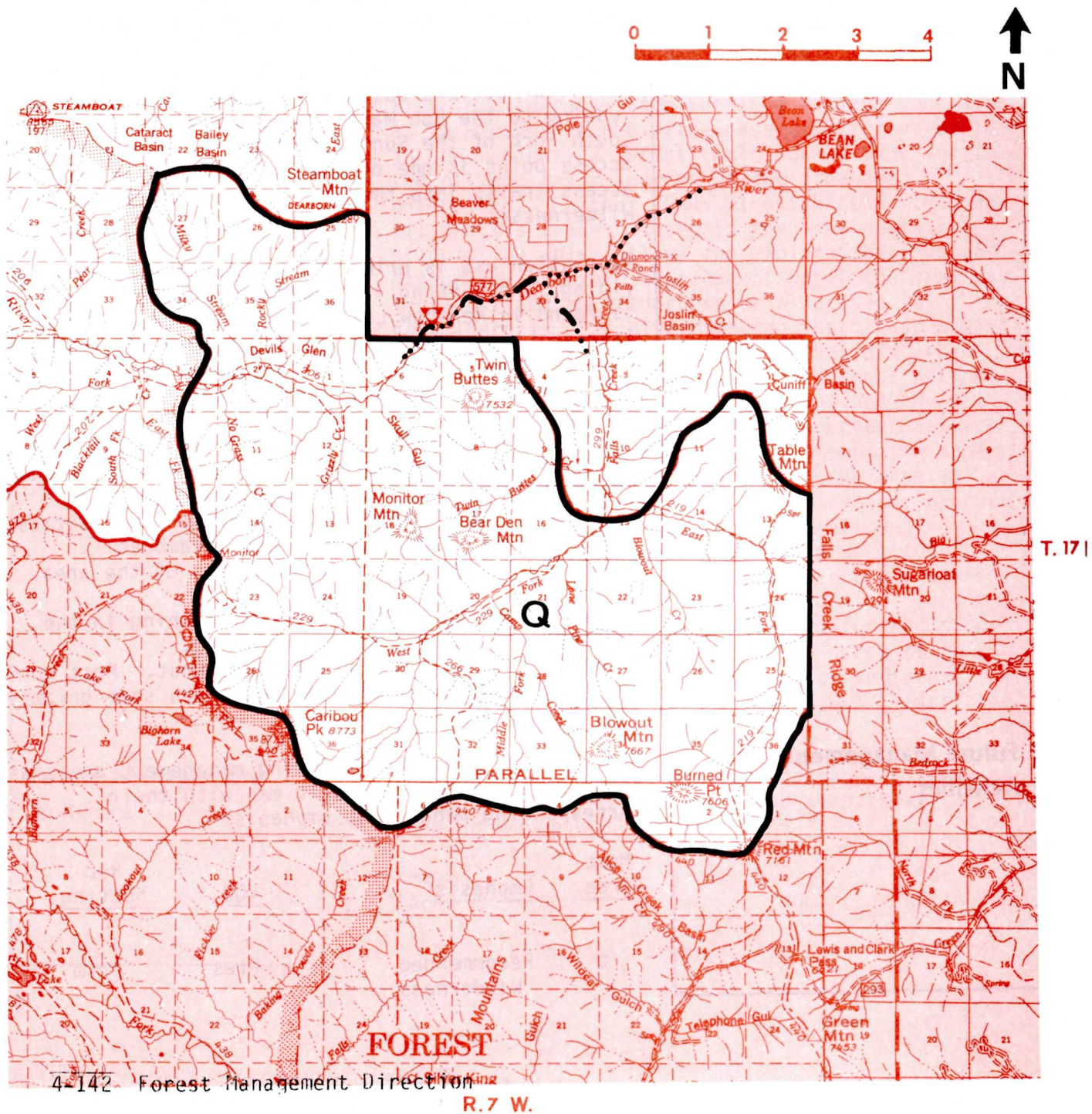
**Future Management
Activities**

The unit contains the following management areas as shown on the geographic unit map with their corresponding management emphasis:

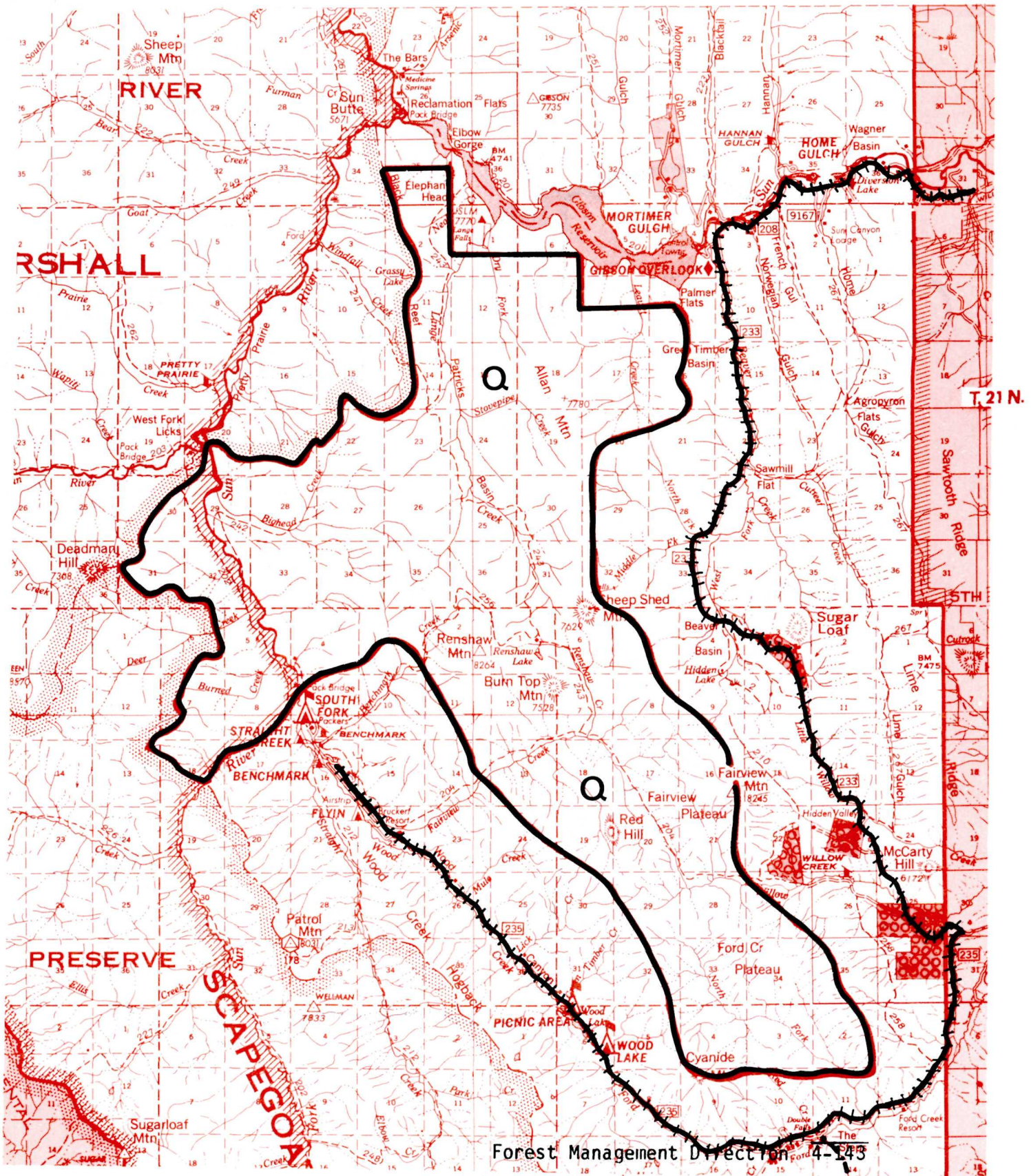
<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
Q	Recommended Wilderness	Pres	Prim

RM-11

Recommended Wilderness Silver King — Falls Creek Geographic Unit

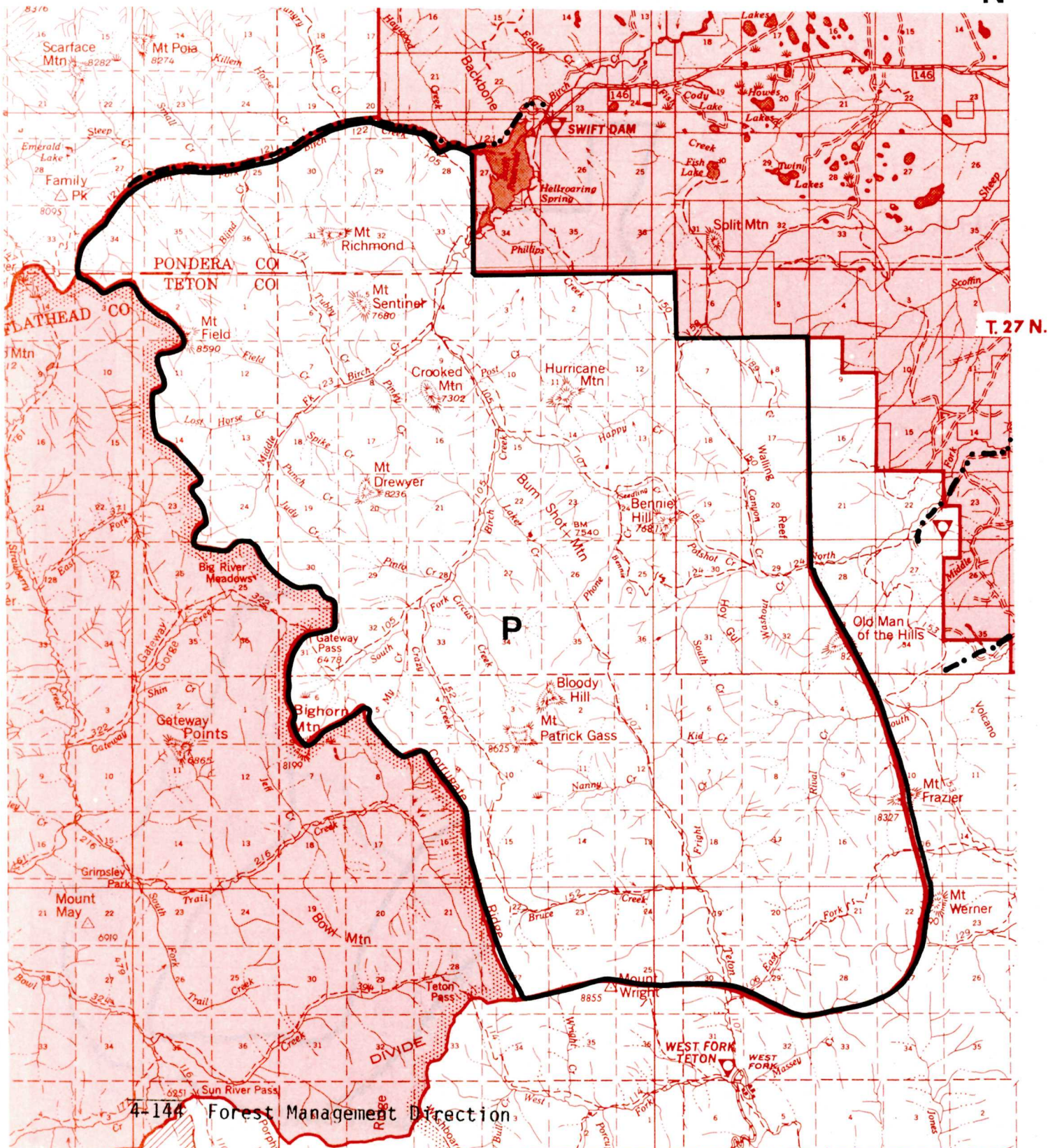


Recommended Wilderness
Renshaw
Geographic Unit



RM-12

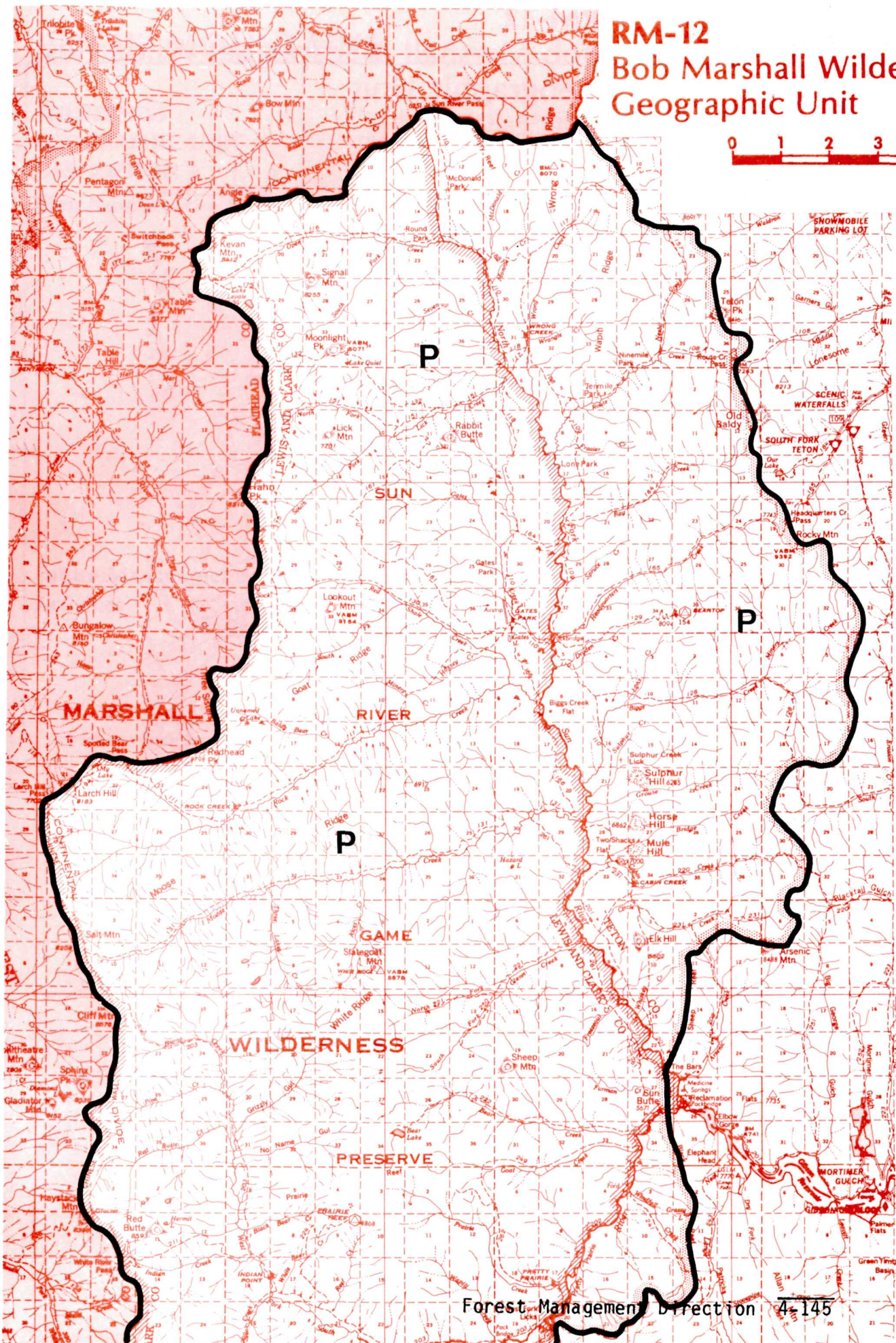
Bob Marshall Wilderness Addition Geographic Unit



4-144 Forest Management Direction

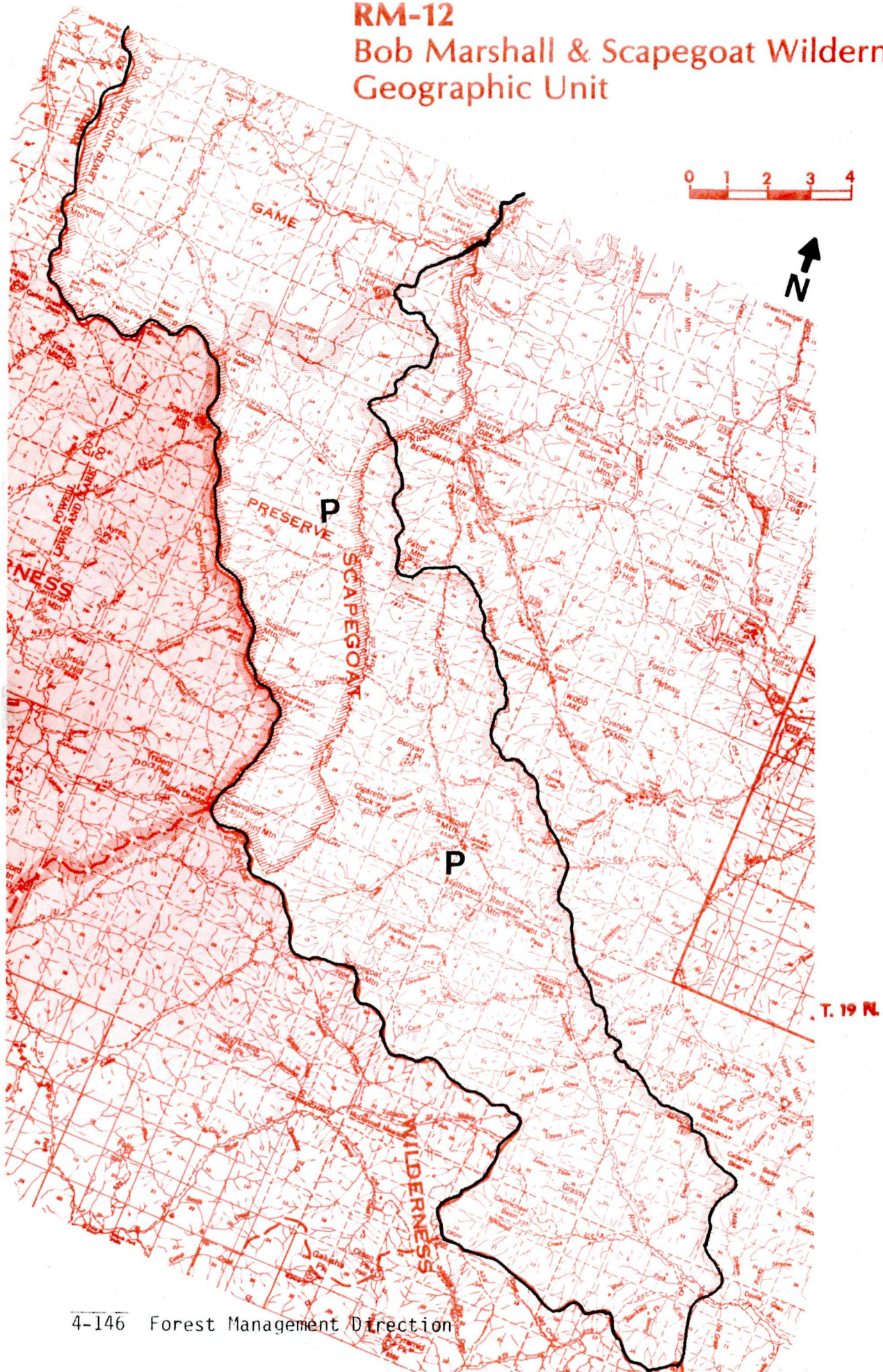
R. 10 W.

RM-12
Bob Marshall Wilderness
Geographic Unit



RM-12

Bob Marshall & Scapegoat Wilderness
Geographic Unit



**WILDERNESS
GEOGRAPHIC UNIT
DESCRIPTION****Map Number RM-12****Future Management
Activities**

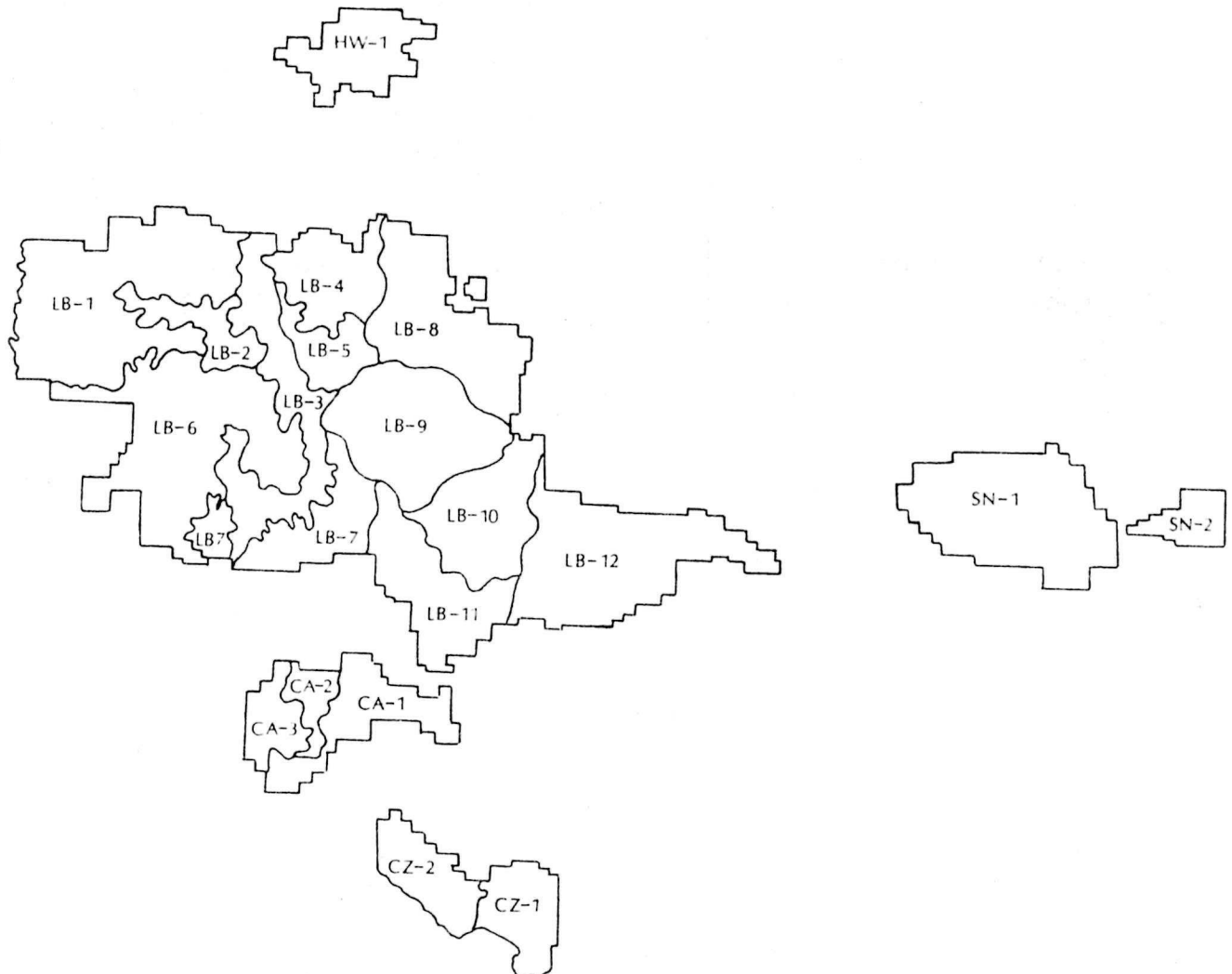
The Wilderness Geographic Unit (RM-10) includes the Bob Marshall and Scapegoat Wildernesses and the Great Bear addition to the Bob Marshall Wilderness.

The area extends about 60 miles from north to south along the Continental Divide on the Rocky Mountain Division. Elevation varies from 5,000-foot valley floors to more than 9,000 feet along the Continental Divide. Visitors travel by foot and horseback. Topography ranges from rugged, precipitous ridgetops to gentle sloping alpine meadows to forested river bottoms. Fossils of extinct animals a billion years old are found in the limestone. The area has changed slightly since the first white man came to Montana. All the big game animals of the West live here including wolverine, grizzly bear, deer, elk, moose, and black bear, as well as mountain goat, sheep, and mountain lion. Fish are plentiful. There is a well developed trail system in the area.

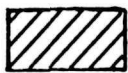
The unit contains the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
P	Wilderness	Pres	Prim

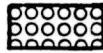
Lewis & Clark National Forest Plan Jefferson Division Geographic Units



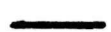
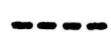
Legend

- Geographic Unit
- Management Area
-  Timber Sale Area
-  Campground

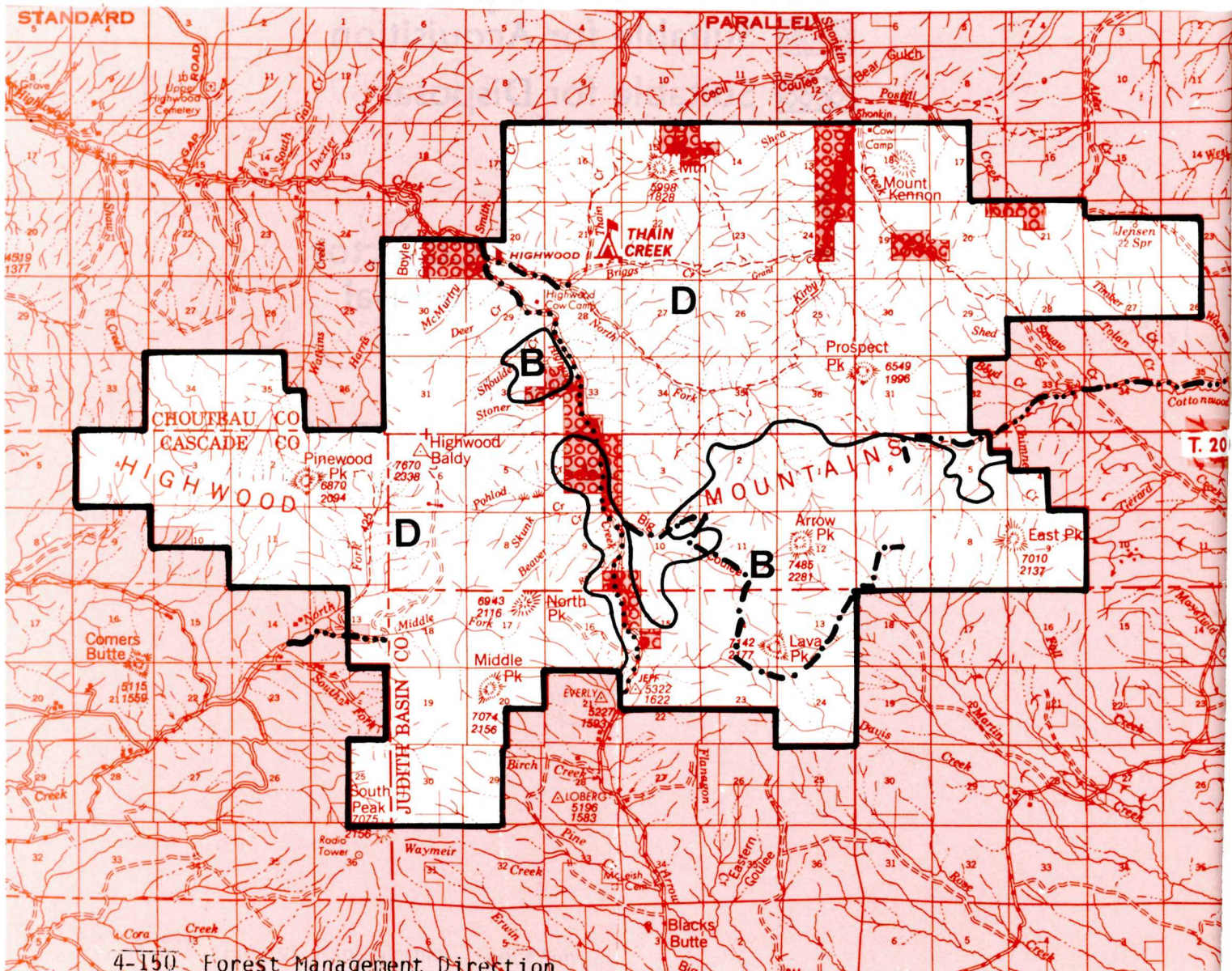
Landownership Adjustment

-  Suitable for Acquisition
-  Suitable for Disposal

Roads

-  Federal — Aid Collector
-  Federal — Aid Arterial
-  Forest Arterial
-  Forest Collector
-  County or other Agency
-  Private (Right of Way Required)

HW-1 Highwood Geographic Unit



4-150 Forest Management Direction

R. 9 E.

HIGHWOOD GEOGRAPHIC UNIT DESCRIPTION

Map Number HW-1

The Highwood Geographic Unit (HW-1) is made up of all the National Forest portion of the Highwood Mountains. Major drainages are Highwood, Martin, Shonkin, Cottonwood, Arrow, and Little Belt Creeks. Major mountains are Middle Peak, North Peak, East Peak, Pinewood Peak, Arrow Peak, Lava Peak, Highwood Baldy, Windy, Mount Kennon, and Prospect Peak. The unit is a mosaic of timber (Douglas fir, lodgepole pine, and limber pine), grass (bunchgrasses), and rock. Slopes are moderately steep. Winter and summer range for elk and deer are scattered throughout the unit.

Most trails are on the east side of the unit. The major trails are North Fork Trail (351), Briggs Creek Trail, Windy Mountain Trail, and Kirby Trail (425). Thain Creek Campground provides developed recreation. Highwood Guard Station is an administrative site. There is also a communication site on the top of Highwood Baldy.

The oil and gas potential for the unit is unknown; however, the entire area is leased.

Past Management Activities

There have been a small amount of post and pole sales in the past. The unit has been intensively grazed since the early 1900's. There was a 20 percent reduction in livestock numbers in the 1960's.

Major fires burned most of the unit at the turn of the century. The South Fork Highwood Road (121) splits the mountains east from west. Thain Creek Road (8841) branches from that road into Thain Creek Campground.

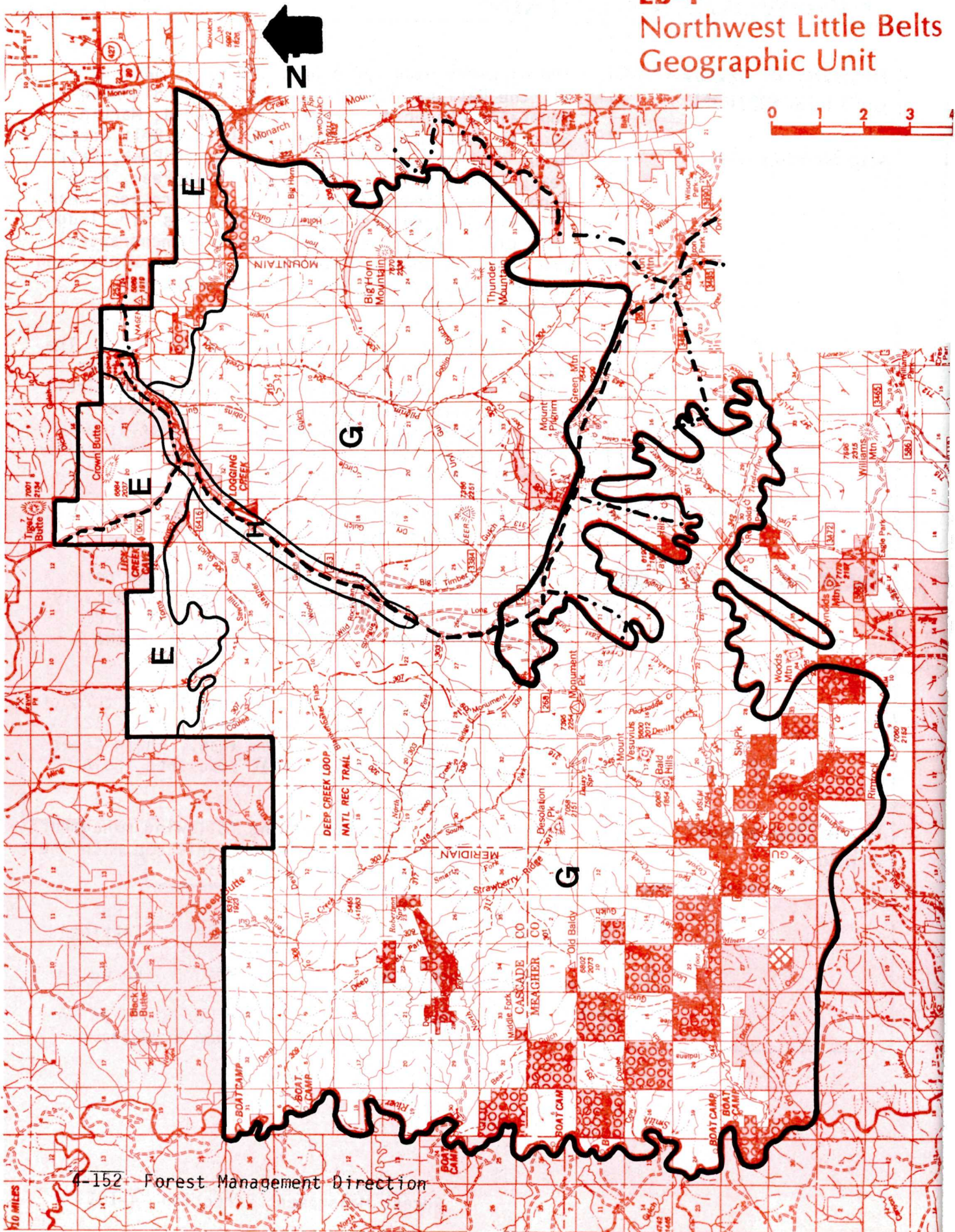
Future Management Activities

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
B	Timber or Timber/Grazing	Mod	Rd Na Ap
D	Grazing	Par Ret	Rd Na Ap
R	Riparian Zone	Same as adjacent	

LB-1

Northwest Little Belts Geographic Unit



4-152 Forest Management Direction

T. 15 N.

NORTHWEST LITTLE BELTS GEOGRAPHIC UNIT DESCRIPTION

Map Number LB-1

The Northwest Little Belts Geographic Unit (LB-1) includes The Tenderfoot, Pilgrim, Logging, and Deep Creek drainages and parts of the Smith River and Belt Creek. It also includes Thunder, Old Baldy, and Desolation Mountains.

Slopes are moderate to steep with lodgepole pine, Douglas fir, and whitebark pine. Parks intersperse the area and these are mosaic areas of grass and timber.

Lick and Tenderfoot Creek both have falls, making them notable features of the unit. Smith River, Deep Creek, and Belt Creek Canyons are also noteworthy features.

The unit contains major winter ranges for elk and mule deer. Several elk calving areas are also present.

Past Management Activities

The unit has one developed campground, Logging Creek, and several trails including Deep Creek (309), Tenderfoot (342), and Pilgrim (304).

Some mining activity is taking place and the unit currently has three oil and gas leases. Several recreational residences are located along Logging Creek.

Future Management Activities

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
E	Grazing/Wildlife	Par Ret	Rd Na Ap
G	Semi-Primitive Recreation	Par Ret	Semi-Primitive
H	Developed Recreation	Ret/Par Ret	Rd Na Ap & Rural
R	Riparian Zone	Same as adjacent	

LITTLE BELT MOUNTAINS

TENDERFOOT — NORTH DIVIDE

TENDERFOOT — NORTH DIVIDE GEOGRAPHIC UNIT DESCRIPTION

Map Number LB-2

The North Divide-Tenderfoot Geographic Unit (LB-2) includes Tenderfoot (including the experimental forest), Tillinghast, and Belt Creek drainages, Iron Mountain, and Central, Iron Mines, Harley, Onion, and O'Brian Parks.

Slopes range from gentle to moderate with lodgepole pine, Douglas fir, and spruce in forested areas interspersed with grass parks and grass stringers along creeks.

The entire unit provides summer-fall range for elk and deer. Numerous trails provide dispersed recreation with no developed recreation sites. The unit has a number of archeological sites including the Neihart/White Sulphur Springs Road.

Past Management Activities

Timber in the unit has been heavily harvested and the area is extensively roaded. There are numerous sheep and cattle grazing allotments. Small fires (less than 100 acres) have burned numerous places in the past.

Mining activity has occurred in the past and wood-cutting is heavy. Recently a 3,000-acre blowdown occurred and red belt affects 20,000 acres.

The Tenderfoot Experimental Forest has been an experimental forest since 1961.

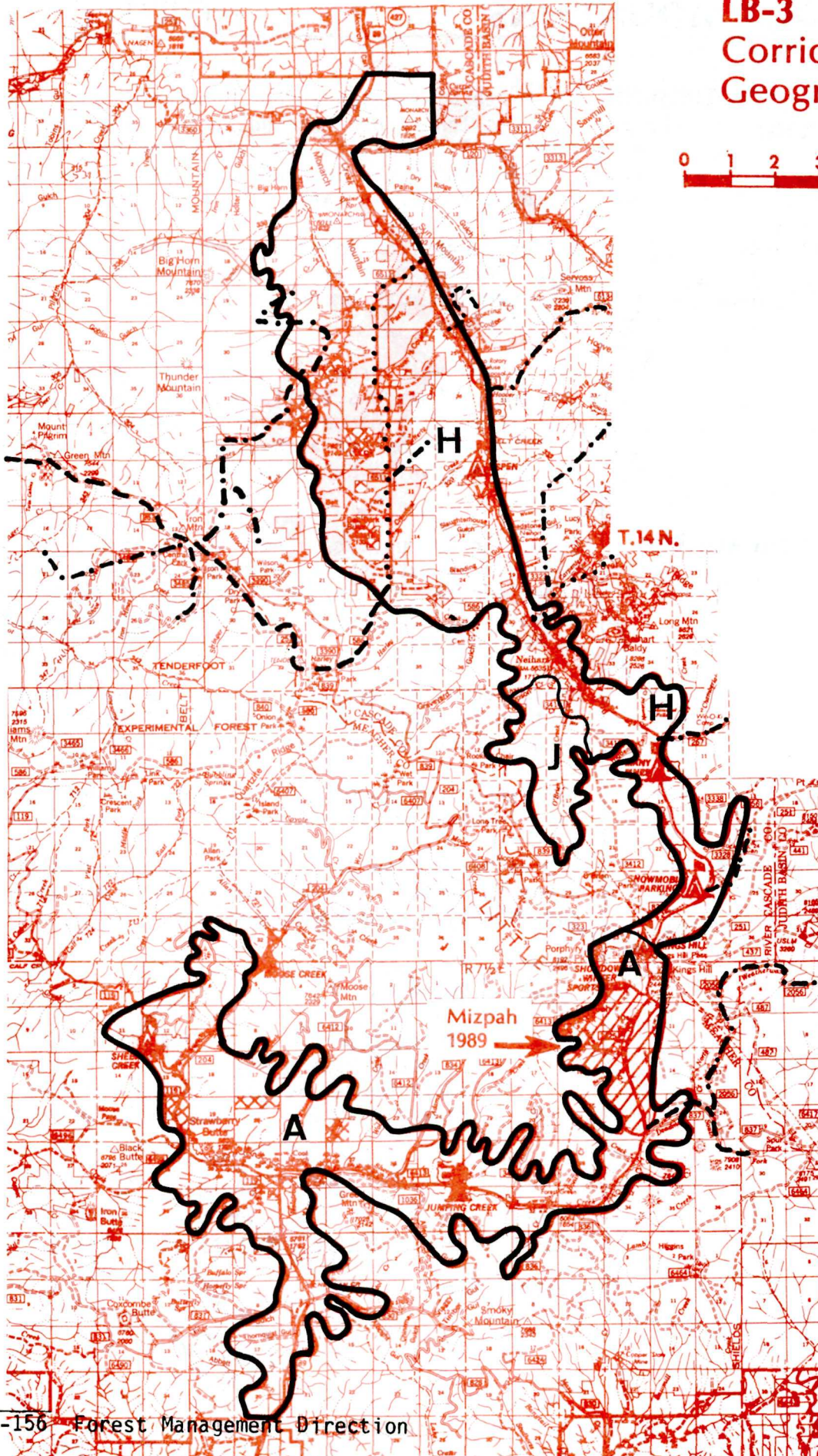
Future Management Activities

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
B	Timber or Timber/Grazing	Mod	Rd Na Ap
K	Experimental Forest	Mod	Rd Na Ap
R	Riparian Zone	Same as adjacent	

<u>Timber Sale</u>	<u>Year</u>	<u>Approx. Acres Harvested</u>	<u>Approx. Vol. Million Board Feet</u>
Central Park	1989	225	1.8

LB-3 Corridor Geographic Unit



**CORRIDOR GEOGRAPHIC
UNIT DESCRIPTION****Map Number LB-3**

The Corridor Geographic Unit (LB-3) includes the U.S. Highway 89 corridor, Strawberry Butte, Porphyry Peak, and parts of Belt, Sheep, Newland, and Moose Creek drainages.

The unit, with steep slopes and rolling mountains, has areas of Douglas fir, lodgepole pine, spruce, aspen, and grass and sagebrush. Minor segments of mule deer winter range are found in the northern end of the unit.

A number of trails go from the unit into other areas. The unit contains a number of campgrounds including Aspen, Kings Hill, Many Pines, Jumping Creek, Moose Creek, Memorial Falls, and Sheep Creek fishing access. The Showdown Ski Area is at Kings Hill and a snowmobile parking lot is located nearby. A number of summer homes are located in the unit. All major portions of the O'Brien Creek watershed, which is the Neihart municipal water supply, is within this unit.

The Belt Creek administrative site is located between Neihart and Monarch. The towns of Neihart and Monarch, on private land, are also located in the unit as is a larger private tract at Belt Park. Mining activity still takes place near those areas.

Past Management Activities

Timber harvesting has taken place in the unit as has grazing on a number of cattle and sheep allotments.

Besides the recreation sites, an old railroad grade follows the Belt Creek in the unit. There are also splash dams on Sheep Creek and log chutes in Allan Gulch. Mining has taken place in the past and there are numerous old mines as well as numerous gravesites.

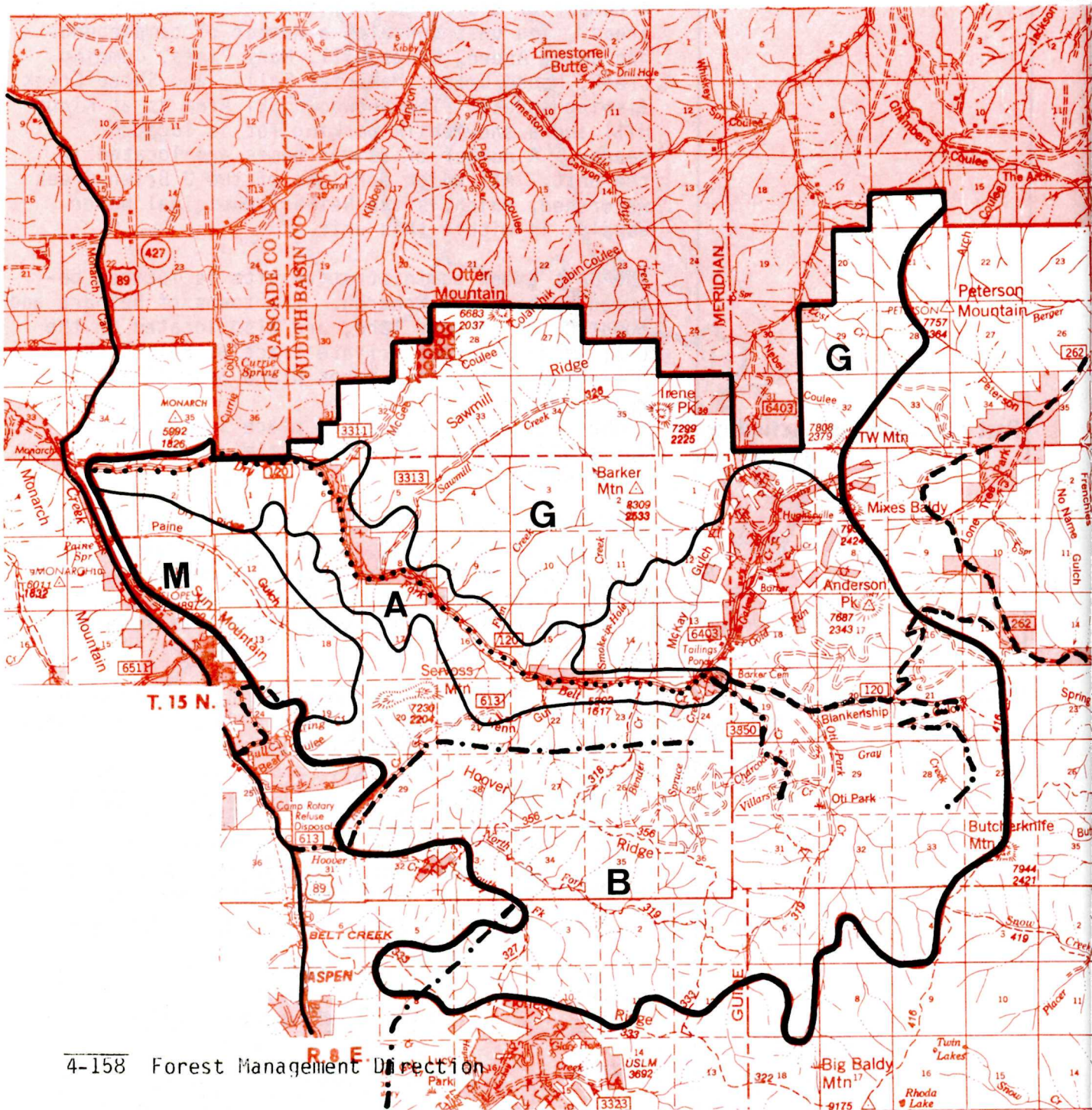
**Future Management
Activities**

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
A	Timber/Visual	Par Ret	Rd Na Ap
H	Developed Rec	Ret/Par Ret	Rd Na Ap & Rur
J	Municipal Watershed	Ret	Semi-Primitive
R	Riparian Zone	Same as adjacent	
<u>Timber Sale</u>	<u>Year</u>	<u>Approx. Acres Harvested</u>	<u>Approx. Vol. Million Board Feet</u>
Mizpah	1989	240	1.9

LB-4

Hughesville — Oti Geographic Unit



HUGHSVILLE — OTI GEOGRAPHIC UNIT DESCRIPTION

Map Number LB-4

The Hughsville Oti Geographic Unit (LB-4) includes all or portions of Big Otter, Galena, Sawmill, and McGee Coulee, Dry Fork, Belt, Oti, Hoover Creek, Blankenship Gulch drainages, Peterson, Barker, Servoss, Butcherknife, and Anderson Mountains, Irene Peak, Hoover and Pioneer Ridges, and Oti Park.

Slopes in the unit range from gentle to steep with the majority of the unit having steep slopes. A mosaic of grass and timber is found on Hoover Ridge and in Oti Park. Other gentle ridges in the unit are mostly grass, with Douglas fir, lodgepole pine, ponderosa pine, limber pine, and white bark pine found on slopes.

Major trails include Oti Creek Trail, Hoover Creek Trail (319), and Pioneer Ridge Trail (333). The unit has no developed sites.

The northern portion of the unit provides winter range for elk and mule deer. Elk calving also occurs in the unit.

Hughsville, an old mining area, and a site of present activity, contains many patented mining claims. Mineral exploration has increased in the late 70's and early 80's. There is an old railroad grade from Monarch to Hughsville.

Past Management Activities

The unit has had minor timber harvesting activity, mostly connected with mining activity. Three cattle allotments are also in the unit.

Roading has been done for mining needs in the past and activity has increased in the late 70's and early 80's.

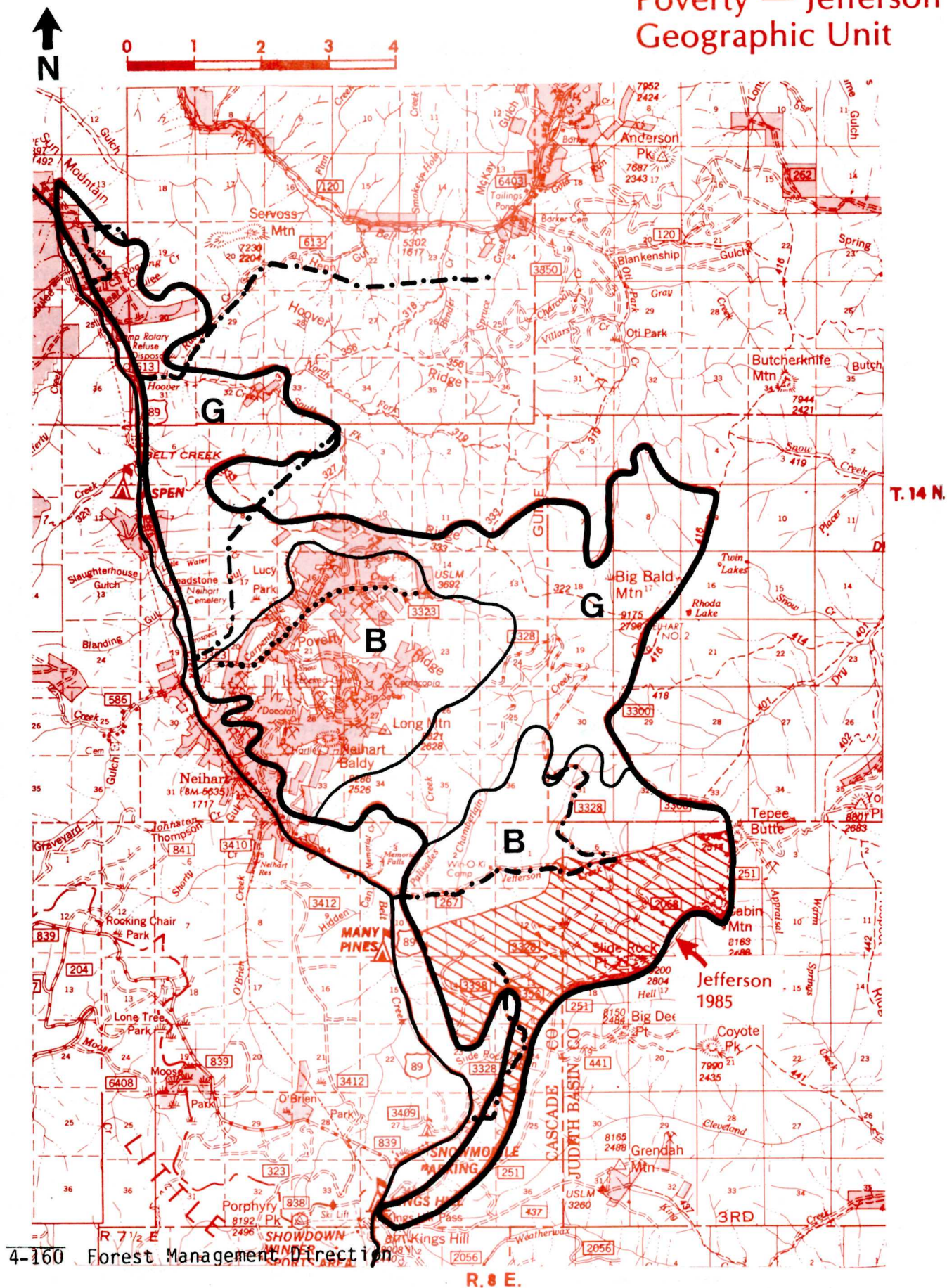
The Paine Gulch area has been recommended as a research natural area.

Future Management Activities

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
A	Timber/Visual	Ret/Par Ret	Rd Na Ap
B	Timber or Timber/Grazing	Mod	Rd Na Ap
G	Semi-Primitive Recreation	Par Ret	Semi- Primitive
M	Research Natural Area	Pres	Semi- Primitive
R	Riparian Zone	Same as adjacent	

Poverty — Jefferson Geographic Unit



**POVERTY — JEFFERSON
GEOGRAPHIC UNIT
DESCRIPTION
Map Number LB-5**

Past Management Activities

**Future Management
Activities**

The Poverty-Jefferson Geographic Unit (LB-5) includes portions of Hoover, Carpenter, Chamberlain, and Jefferson Creek, Poverty Ridge, Neihart Baldy, Long Mountain, and Lucy Park.

Poverty Ridge-Carpenter Creek area has been heavily explored for minerals. Many claims have been patented in the past.

Timber harvest has occurred in the Chamberlain and Jefferson Creeks and throughout the area associated with mining activities.

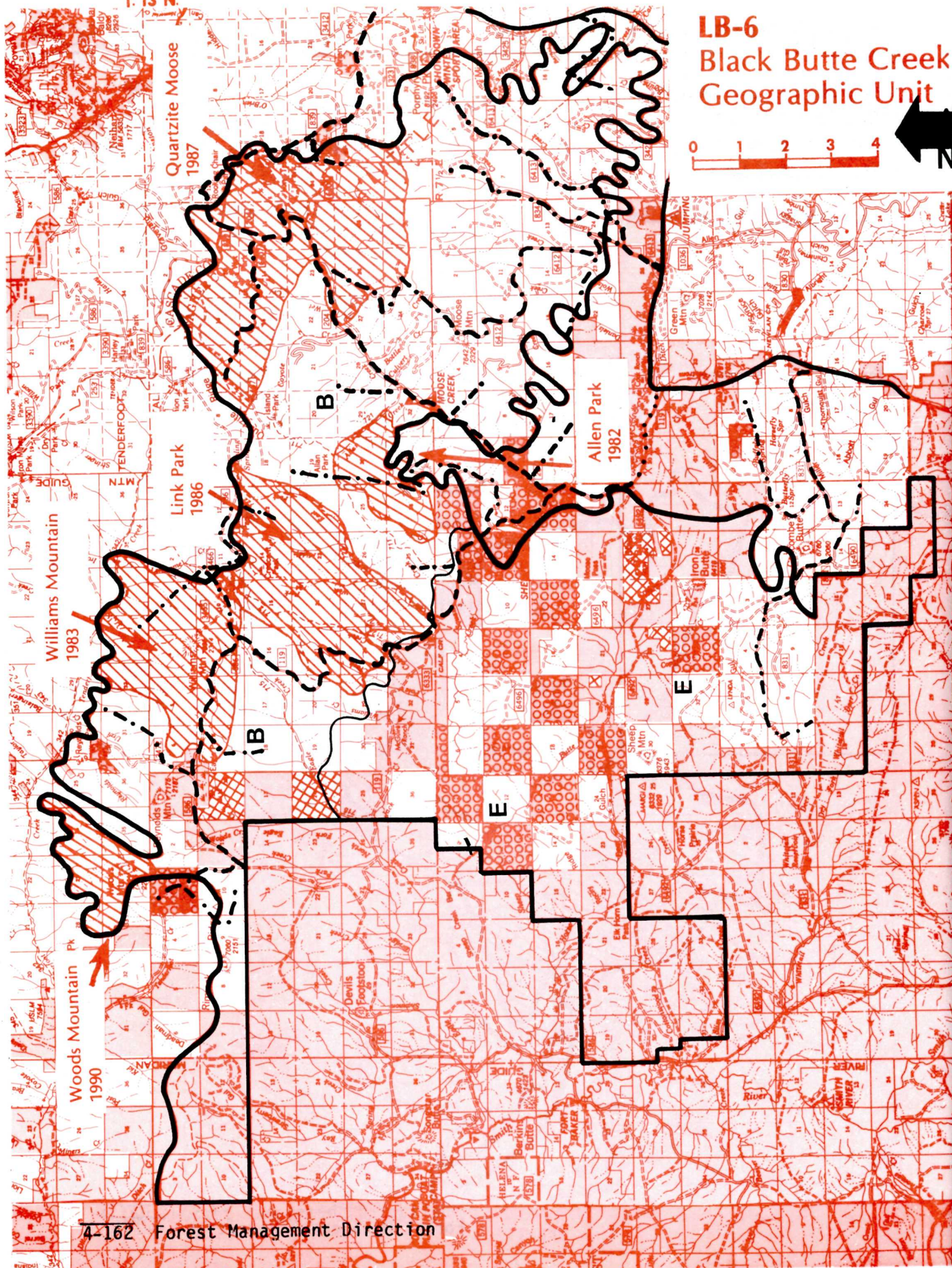
The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
B	Timber or Timber Grazing	Mod	Rd Na Ap
G	Semi-Primitive Recreation	Par Ret	Semi-Primitive
R	Riparian Zone	Same as adjacent	

<u>Timber Sale</u>	<u>Year</u>	<u>Approx. Acres Harvested</u>	<u>Approx. Vol. Million Board Feet</u>
Jefferson	1985	375	3.0

T. 13 N.

LB-6 Black Butte Creek Geographic Unit



LITTLE BELT MOUNTAINS

BLACK BUTTE CREEK

BLACK BUTTE CREEK GEOGRAPHIC UNIT DESCRIPTION

Map Number LB-6

Past Management Activities

Future Management Activities

The Black Butte Creek Geographic Unit (LB-6) includes portions of the Black Butte, Whitetail, Moose, Jumping, and Sheep Creek drainages, Black Butte, Iron Butte, and Williams, Reynolds, and Sheep Mountains. The unit is heavily checker-boarded with private land.

The unit is rolling gentle to moderate slopes of Douglas fir, lodgepole pine, spruce, aspen, mosaics of grass and timber, and large areas of grass.

About half of the southern portion of the unit is winter range for elk. Several elk calving areas are present.

Numerous trails provide dispersed recreation with no developed sites.

Timber harvest has taken place on the unit with associated roading. Extensive grazing has been done on the unit also.

The unit has iron mines that are still active.

The unit contains parts of the following management, areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
B	Timber or Timber/Grazing	Mod	Rd Na Ap
E	Grazing/Wildlife	Par Ret	Rd Na Ap
R	Riparian Zone	Same as	adjacent

<u>Timber Sale</u>	<u>Year</u>	<u>Approx. Acres Harvested</u>	<u>Approx. Vol. Million Board Feet</u>
Allan Park	1982	210	1.7
Williams Mtn.	1983	875	7.0
Link Park	1986	275	2.2
Quartzite	1987	500	4.0
Moose Woods Mtn.	1990	460	3.7

A horizontal line representing a 1D lattice with five sites labeled 0, 1, 2, 3, and 4 from left to right. Below the line, a large black arrow points to the right, labeled with the letter z .



**SMOKEY GEOGRAPHIC
UNIT DESCRIPTION****Map Number LB-7**

The Smokey Geographic Unit (LB-7) includes portions of the Newlan, Lamb, Jefferson Creeks, and Miller Gulch drainages and Smokey Mountain.

Gentle to moderate slopes have lodgepole pine, Douglas fir, and spruce with grassy parks and grass stringers along creeks. Features in the area include Boundary Lake and other geological features, Smith River Spring, Allen Gulch, log chutes, and evidence of early logging activity. The unit contains some mule deer winter range.

There are no major trails or campgrounds in the unit and moderate potential for oil and gas.

Past Management Activities

Timber harvesting has taken place as well as grazing for cows and sheep. Roading for those activities is evident.

The unit also has a number of summer homes. Some seismic activity has taken place in the late 1970's and early 1980's.

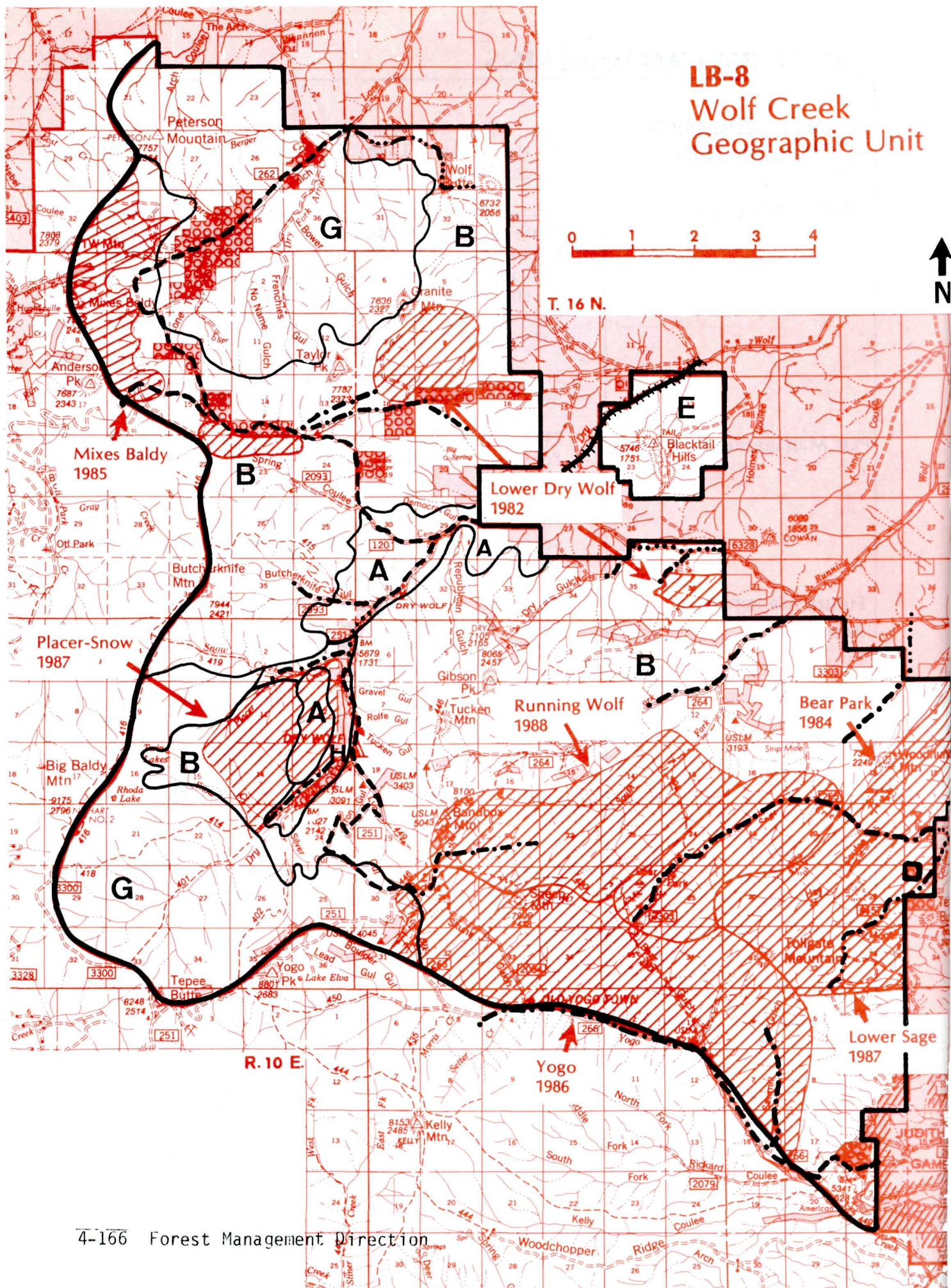
**Future Management
Activities**

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
B	Timber or Timber/Grazing	Mod	Rd Na Ap
R	Riparian Zone	Same as adjacent	

<u>Timber Sale</u>	<u>Year</u>	<u>Approx. Acres Harvested</u>	<u>Approx. Vol. Million Board Feet</u>
Lake Creek	1984	185	1.5
N.F. Deadman	1986	250	2.0
Miller Gulch	1988	460	3.7
Corridor	1991	460	3.7
Head of Smith	1992	460	3.7

LB-8 **Wolf Creek** **Geographic Unit**



**WOLF CREEK GEOGRAPHIC
UNIT DESCRIPTION****Map Number LB-8****Past Management Activities**

The Wolf Creek Geographic Unit (LB-8) includes Dry Wolf, Running Wolf, Upper Yogo, and Lone Tree Creek drainages, Big Baldy, Gibson, Woodhurst, Tollgate, Bandbox, Sheep and Granite Mountains, and Blacktail Hills.

Slopes on the northern quarter of the unit are moderately steep while slopes on the rest of the unit are moderate. South-facing slopes are predominately Douglas fir and ponderosa pine, wetter slopes are lodgepole pine and Douglas fir, and drainage bottoms are spruce. Drier non-forested slopes are bunchgrass while wetter bottoms are timothy-bluegrass.

The unit provides winter range for elk and mule deer at lower elevations. Trails in the unit include Dry Wolf Trail (401), Big Baldy Trail (416), and Bear Park Trail (408) provide dispersed recreation. Dry Wolf Campground provides developed recreation.

Some mining of iron ore has taken place in the Wolf Divide/Willow Creek area.

Scattered selective timber harvesting has taken place since the early 1900's. Post and pole cutting has also been widespread.

The most intensive timber management since the 1960's has been near Anderson Peak, Dry Wolf, and Skunk Gulch. Timber sales are planned for Lower Dry Wolf, Bear Park, Lower Sage, Yogo, Placer-Snow, and Mixes Baldy within the next five years.

Vast areas were burned in the early 1900's. Fires burned on Green Mountain in the 1940's and Anderson Peak in the early 1970's.

Thirteen cattle and horse allotments - Lone Tree, Granite Mountain, Taylor Mountain, Butcher Knife, Yogo Creek, Bear Park, Sage Creek, Wolf Butte, Running Wolf, Blacktail Hills, Dry Wolf, Big Spring, and Pig Eye are managed under season-long, deferred, or rest rotation grazing systems.

Limited big game habitat improvement has been done on the unit as well as cooperative habitat improvement work has occurred on the Judith Game Range owned by the State of Montana.

LITTLE BELT MOUNTAINS

WOLF CREEK

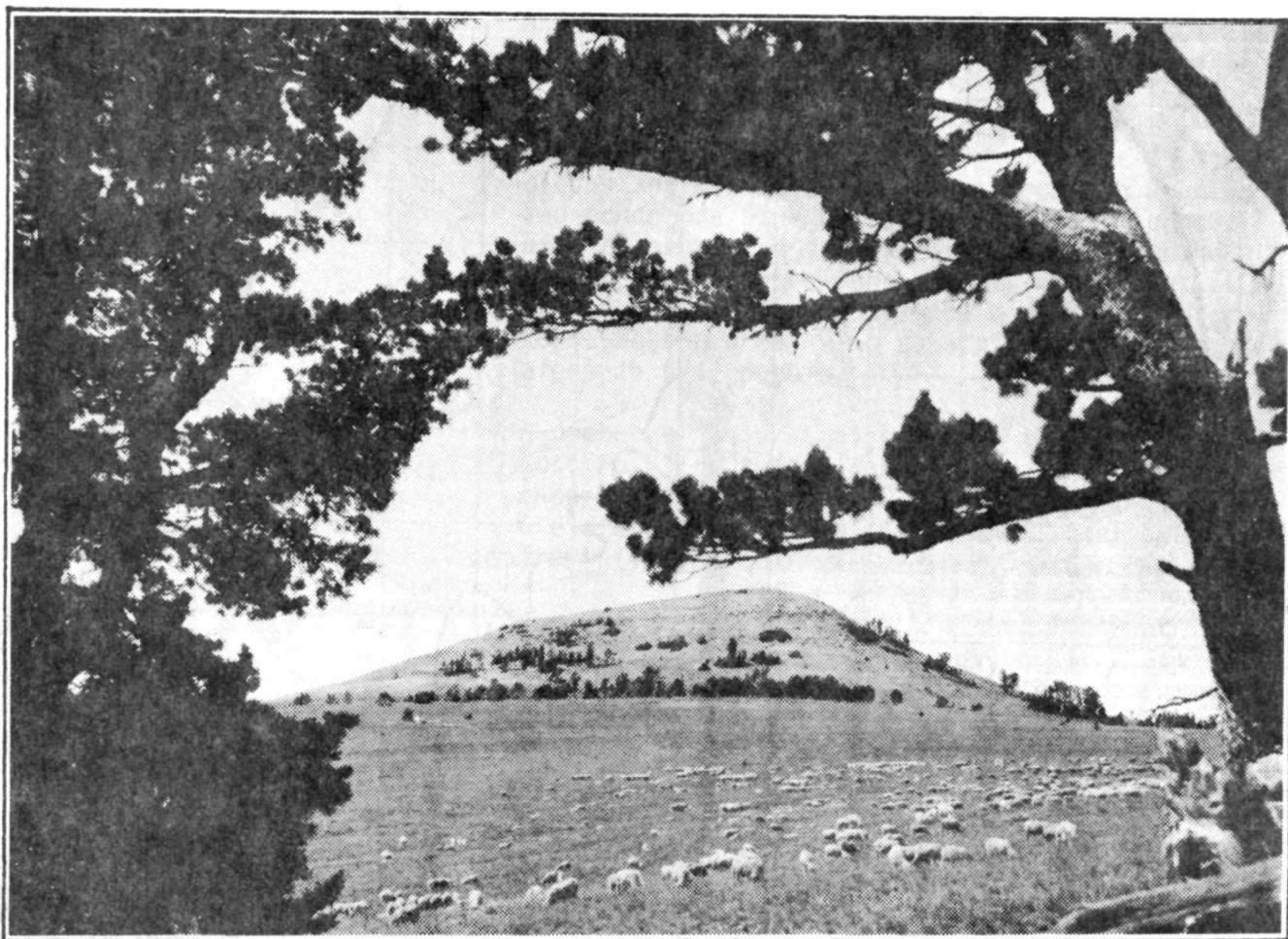
Future Management Activities

Major roads include Dry Wolf (251), Dry Fork Belt Creek (120), Lone Tree (262), Yogo Creek (266), and Wolf Divide (264).

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

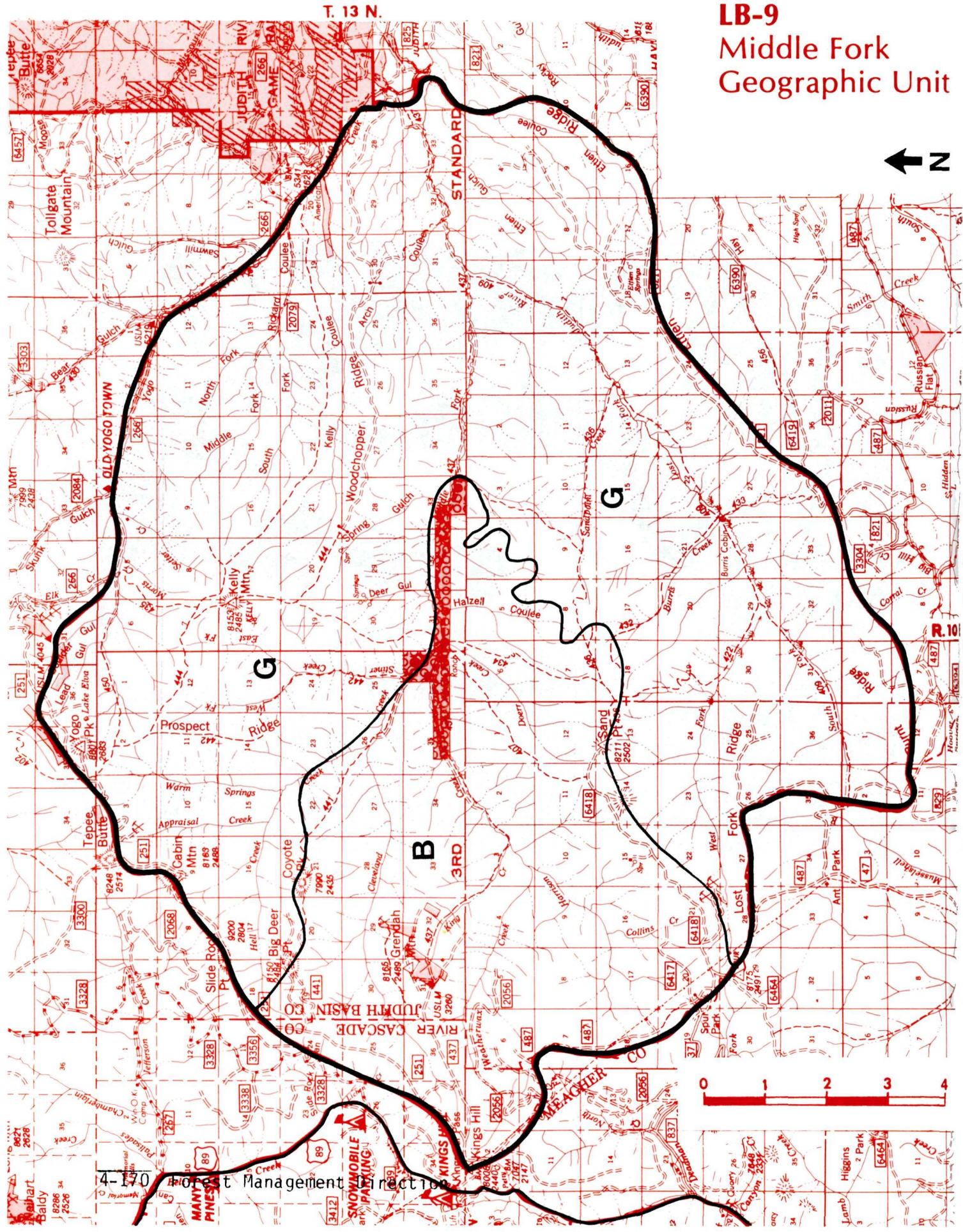
<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
A	Timber/Visual	Par Ret	Rd Na Ap
B	Timber or Timber/Grazing	Mod	Rd Na Ap
E	Grazing/Wildlife	Par Ret	Rd Na Ap
G	Semi-Primitive Recreation	Par Ret	Semi- Primitive
R	Riparian Zone	Same as	adjacent

<u>Timber Sale</u>	<u>Year</u>	<u>Approx. Acres Harvested</u>	<u>Approx. Vol. Million Board Feet</u>
Lower Dry Wolf	1982	400	3.2
Bear Park	1984	625	5.0
Mixes Baldy	1985	300	2.4
Yogo	1986	460	3.7
Placer-Snow	1987	310	2.5
South Running Wolf	1988	150	1.2



BAND OF SHEEP GRAZING NEAR HAYSTACK
BUTTE IN THE LITTLE BELT MOUNTAINS.

LB-9
Middle Fork
Geographic Unit



**MIDDLE FORK GEOGRAPHIC
UNIT DESCRIPTION****Map Number LB-9**

The Middle Fork Geographic Unit (LB-9) includes the lower Lost Fork and the Middle Fork of the Judith River, Weatherwax, Harrison, Yogo, and Cleveland Creek drainages, and Wood Chopper Ridge, Lost Fork Ridge, High Kings Hill, Yogo Peak, and Cabin, Grendah, and Sandpoint Mountain.

The Middle Fork Ranch on the Middle Fork of the Judith, (1,154 acres of private land), and scattered patented mining claims make up the private land in the unit.

The unit consists of generally moderate to steep slopes and gentle drainage bottoms with Douglas fir and ponderosa pine on southern slopes, lodgepole pine on protected slopes, and white bark pine at higher elevations. Bunchgrass predominates on open slopes and dry parks; timothy and bluegrass grow in moist bottom areas with subalpine fir in forested areas in the bottoms.

A number of major trails are in the unit including Lost Fork Trail (409), Burris Trail (433), Wood-chopper Ridge Trail (444), Sandpoint Trail (436), Cleveland Ridge Trail (441), and Stiner Creek Trail (442).

The unit contains some elk winter range at lower elevations adjacent to the Judith River Game Range. Major elk calving areas and much of the summer-fall habitat for the Judith River elk herd also occur in the unit.

The lower 2 miles of the Middle Fork Judith River are a narrow scenic limestone canyon. The unit has motorized dispersed recreation opportunities, but no developed sites.

Oil and gas potential is low. Some placer mining is taking place near Yogo Creek.

Scattered selective timber has been harvested on private lands and patented mining claims since the early 1900's. Timber was harvested in the 1960's and 70's in the head of the Harrison and Weatherwax Creek drainages. A significant amount of firewood is also cut each year in accessible areas near the Little Belt Divide.

Past Management Activities

Future Management Activities

A fire at the head of Weatherwax Creek burned about 100 acres in 1970. Scattered large fires also burned the area in the early 1900's.

Four grazing allotments, Middle Fork, Lost Fork, Yogo Creek, and Judith are still active under deferred and rest rotation systems.

A low standard travelway with 21 fords runs up the Middle Fork (437). Three other roads, Yogo Creek Road (266), Dry Wolf Road (251), and Memorial Way Road (487) also provide access in the unit.

Intensive prospecting has been done in the past in the vicinity of Grendah Mountain.

The management area is part of the Middle Fork Judith Montana Wilderness Study Act area. It will be managed to protect its wilderness characteristics until Congress acts on the Forest Service's recommendation.

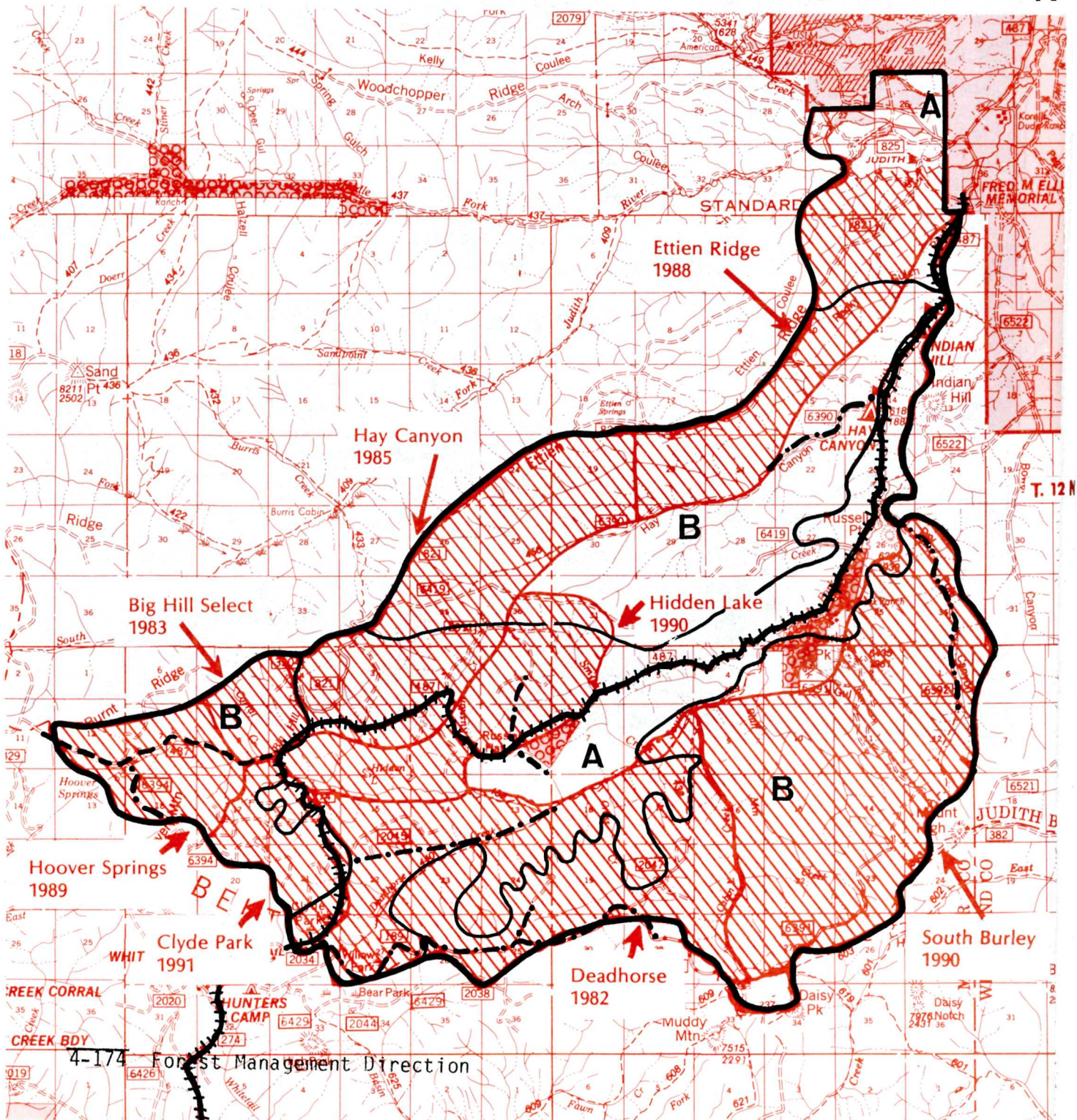
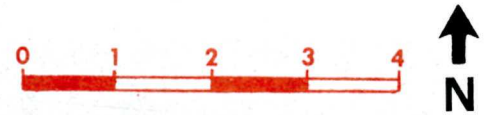
The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
B	Timber or Timber/Grazing	Mod	Rd Na Ap
G	Semi-Primitive Recreation	Par Ret	Semi- Primitive
R	Riparian Zone	Same as adjacent	



A FRESH SNOW FALL ON A CREEK
IN THE LITTLE BELT MOUNTAINS.

LB-10 South Fork Judith Geographic Unit



4-174 Forest Management Direction

**SOUTH FORK JUDITH
GEOGRAPHIC UNIT
DESCRIPTION**
Map Number LB-10

The South Fork Judith Geographic Unit (LB-10) includes the South Fork of the Judith River drainage, including Hay Canyon, High Spring, Russian, Deadhorse, Cabin, Dry Pole Canyon Creeks, and Trask Gulch, Hoover Spring, and Clyde and Willow Park.

The South Fork of the Judith River is a popular summer-fall recreation area. Two campgrounds in the unit, Indian Hill and Hay Canyon, provide developed recreation opportunities. An administrative site, the Judith Guard Station, is within the unit.

Elk and mule deer winter range is found at the lower elevations. Some elk calving also takes place within the unit.

Trails within the unit include South Fork Judith (439) and Deadhorse (440).

Past Management Activities

Timber has been intensively harvested and managed since the early 1950's. Cattle continue to graze on several allotments. Sheep grazing was predominate with the 1960's. Mineral exploration has been intensive and some production has taken place. The unit is a popular place to hunt, especially big game.

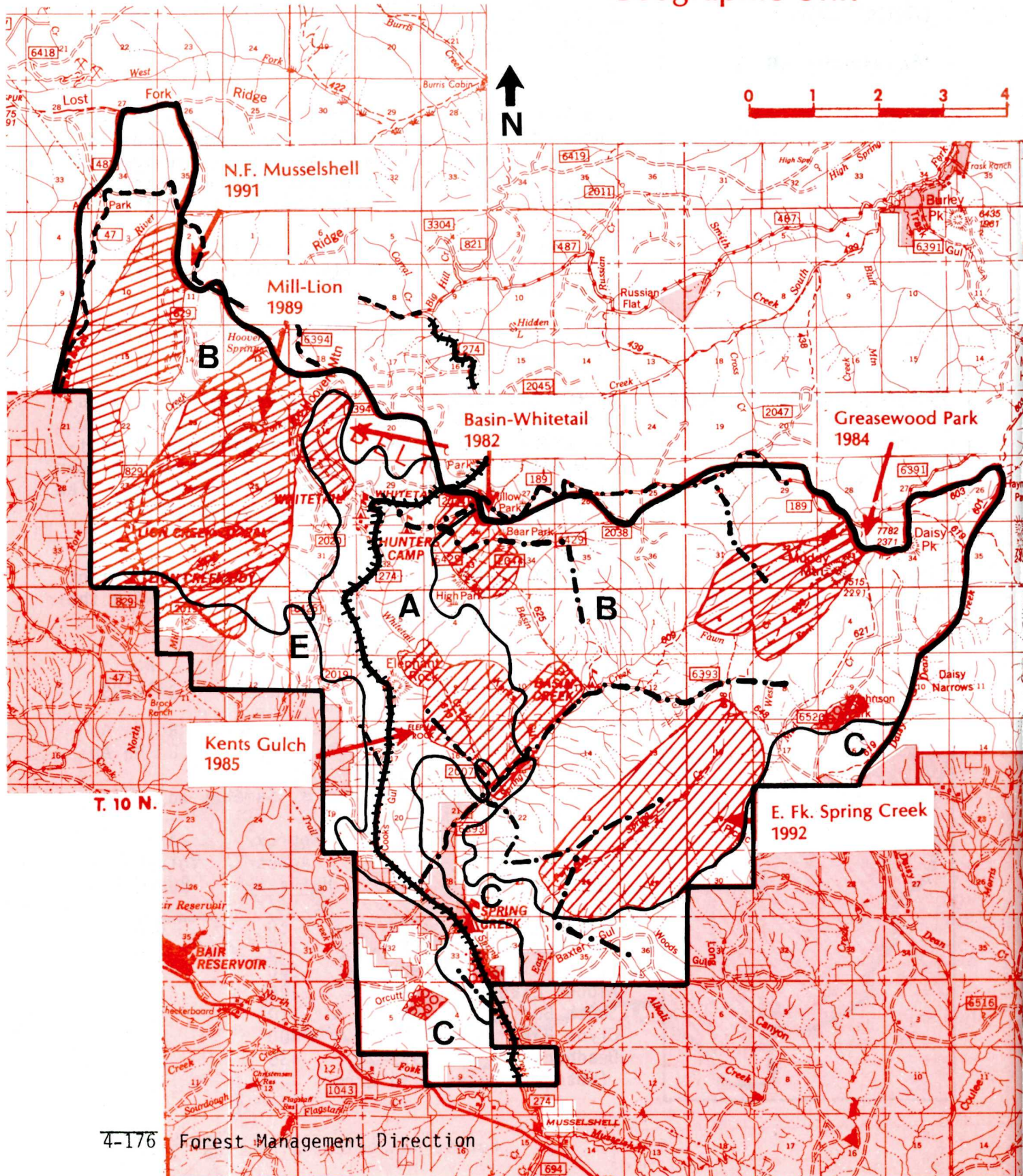
**Future Management
Activities**

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
A	Timber/Visual	Par Ret	Rd Na Ap
B	Timber or Timber/Grazing	Mod	Rd Na Ap
R	Riparian Zone	Same as adjacent	
<u>Timber Sale</u>	<u>Year</u>	<u>Approx. Acres Harvested</u>	<u>Approx. Vol. Million Board Feet</u>
Big Hill Select	1983	60	0.5
Hay Canyon	1985	125	1.0
Ettien Ridge	1988	250	2.0
Hidden Lake	1990	125	1.0
South Burley	1990	310	2.5
Clyde Park	1991	400	3.2
Deadhorse	1992	435	3.5
(note map date is in error)			

LB-11

Spring Creek — Whitetail Geographic Unit



SPRING CREEK GEOGRAPHIC UNIT DESCRIPTION

Map Number LB-11

Past Management Activities

Future Management Activities

The Spring Creek Geographic Unit (LB-11) includes portions of the Spring Creek, Daisy Dean, Whitetail, Mill, and Lion Creek drainages and Hoover Mountain and Daisy Peak.

Slopes in the unit are generally gentle to moderate with extensive subalpine fir and lodgepole pine east of Whitetail drainage and Douglas fir with inclusions of subalpine fir and lodgepole pine west of the drainage. Foothills are grass interspersed with patches of Douglas fir and ponderosa pine.

The majority of the unit is big game summer range, with winter range for elk and mule deer along the southern edge. Elk calving areas are also present in the unit.

The unit has numerous trails, including Whitetail Trail (613), Basin Creek Trail (625), Fawn Creek Trail (609), East Fork Spring Creek Trail (608). Lower Spring Creek Cliffs are a scenic attraction.

The foothill area has oil and gas leases.

The unit has extensive clearcut harvest in lodgepole pine and some Douglas fir stands. Lodgepole pine was harvested beginning in the mid 1950's for pulpwood export to the Midwest. The Cross Creek fire burned about 600 acres in the unit in 1970.

Roading is extensive in harvested areas. Sheep have been grazed at higher elevations with cattle grazing in the foothills and on transitory range created by timber harvest.

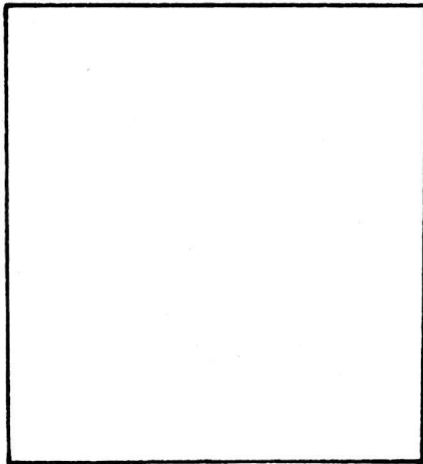
The unit has some summer homes, a campground at Spring Creek, and a Forest Service Work Center, Whitetail Cabin.

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

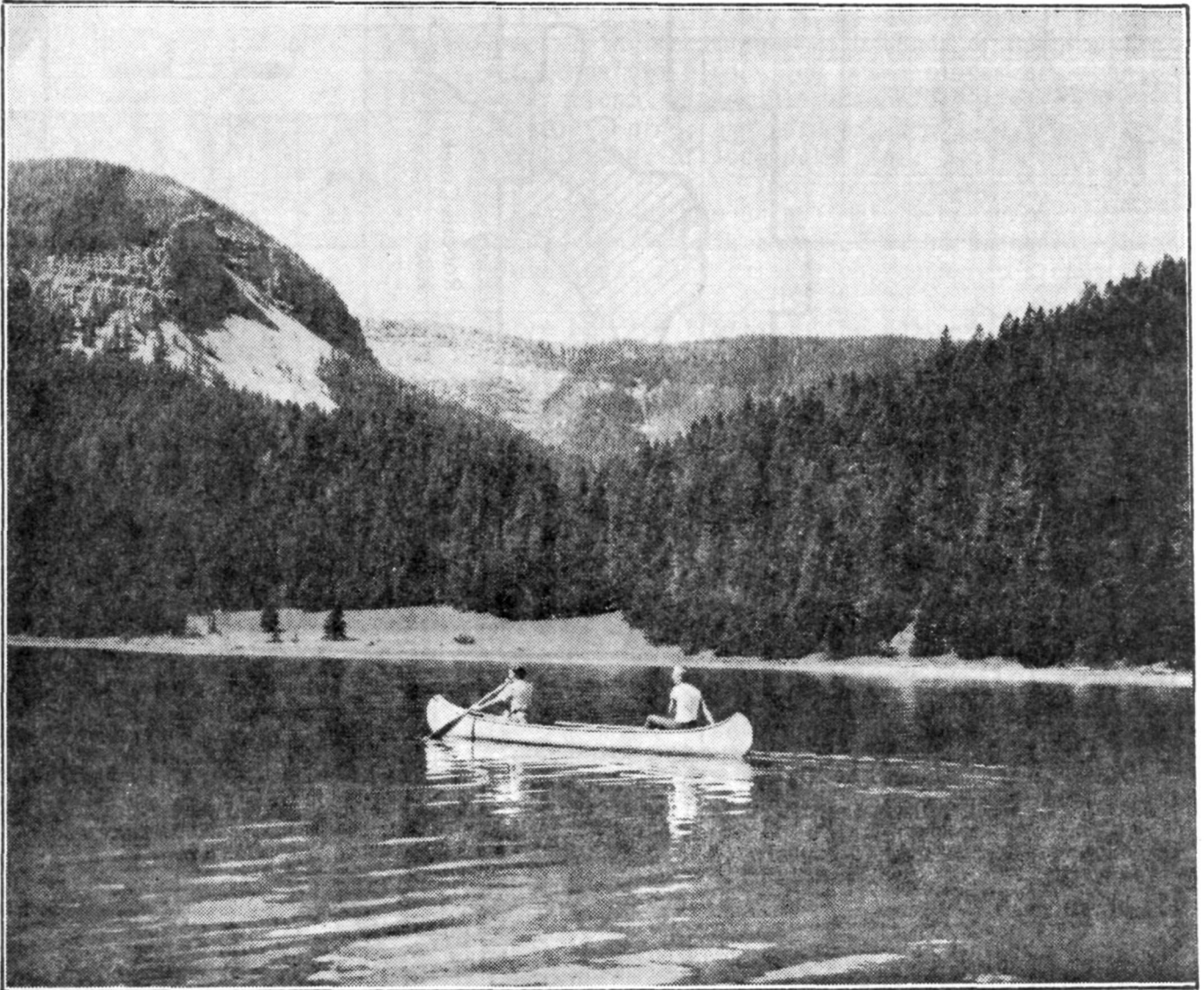
<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
A	Timber/Visual	Ret/Par Ret	Rd Na Ap
B	Timber or Timber/Grazing	Mod	Rd Na Ap
C	Timber/Grazing/ Wildlife	Par Ret	Rd Na Ap
E	Grazing/Wildlife	Par Ret	Rd Na Ap
R	Riparian Zone	Same as adjacent	

LITTLE BELT MOUNTAINS

SPRING CREEK

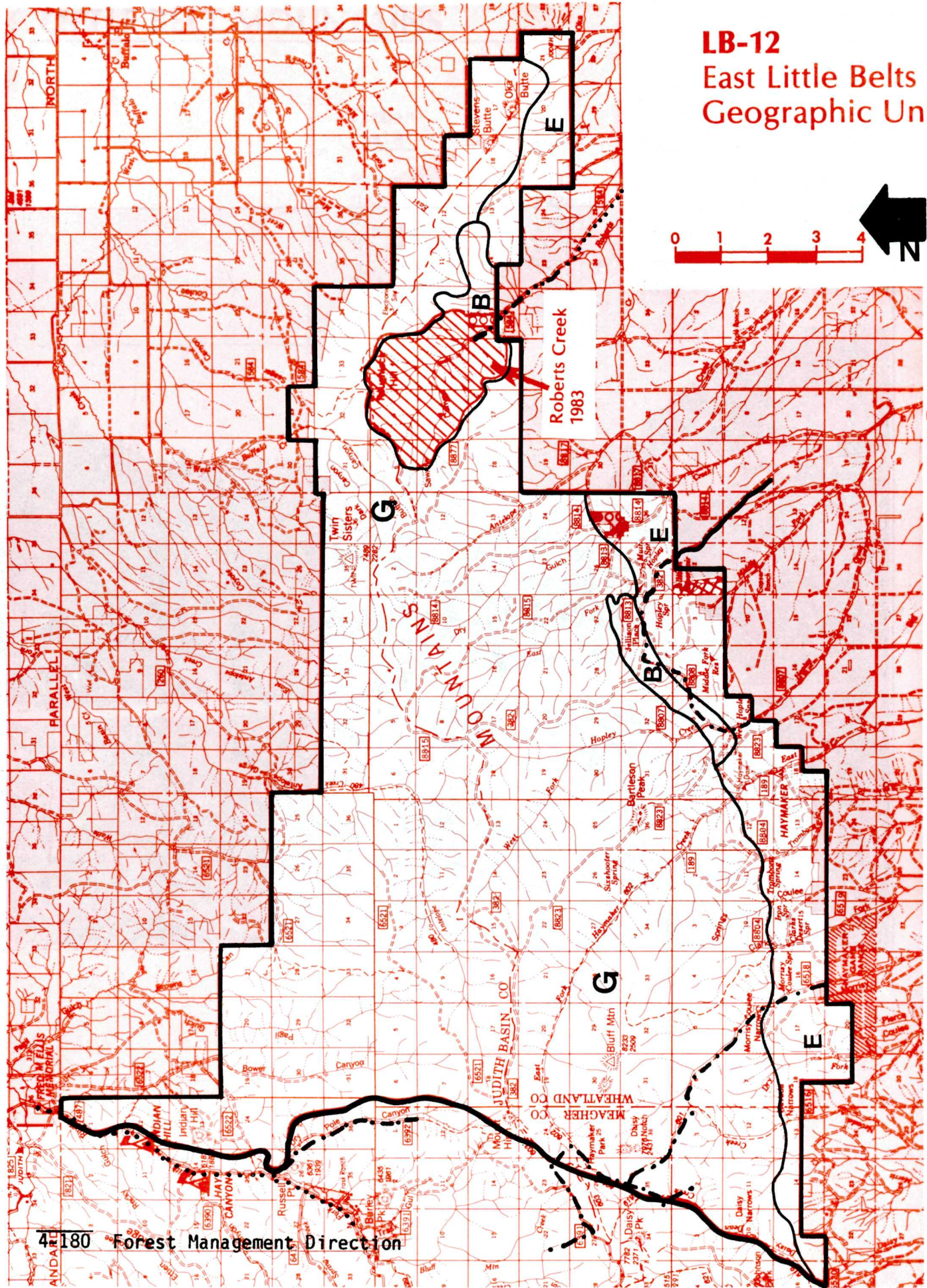


<u>Timber Sale</u>	<u>Year</u>	<u>Approx. Acres Harvested</u>	<u>Approx. Vol. Million Board Feet</u>
Basin-Whitetail	1982	300	2.4
Greasewood Park	1984	125	1.0
Kents Gulch	1985	125	1.0
Mill-Lion	1989	310	2.5
N.F. Musselshell	1991	300	2.4
East Fork Spring Creek	1992	350	2.8



RECREATIONISTS OUT CANOEING ON
CRYSTAL LAKE IN THE BIG SNOWIES.

LB-12 East Little Belts Geographic Unit



4180 Forest Management Direction

T. 11 N.

R. 14 E.

**EAST LITTLE BELTS
GEOGRAPHIC UNIT
DESCRIPTION**
Map Number LB-12

The East Little Belts Geographic Unit (LB-12) includes portions of the drainages of Haymaker and Roberts Creeks, and the forks of Hopley Creek and Mount High, Bluff Mountain, and Daisy Notch.

The unit has moderately sloped foothills, gentle high ridges, and very steep side slopes. Foothills are rolling grasslands with bands of Douglas fir and ponderosa pine. The broad ridges are sparse in vegetation. Higher elevations are limber pine, whitebark pine, and spruce. Drainage slopes are dense stands of lodgepole pine.

A majority of the unit is big game summer range with extensive elk and deer winter range at lower elevations, particularly on southwest slopes.

There are few trails in the unit; a dispersed recreation site at Haymaker Creek and wheel track roads on many ridges and in some drainage bottoms provide dispersed recreation opportunities.

Some leases have been issued for oil and gas in the unit.

Past Management Activities

Some timber harvest has taken place in the foothills. Pitch posts were harvested in the early 1900's. Wildfire denuded the high elevation ridges in the late 1800's.

Sheep grazing was extensive in the past until the late 1950's and early 60's. Cattle grazing continues along the foothills.

Big game hunting is popular in the unit. A special use motorcycle race has been run in the Haymaker Canyon - Mount High portion of the area for over 20 years.

Oil and gas activity is limited in some areas by landtype, slope, and timing restrictions to protect big game.

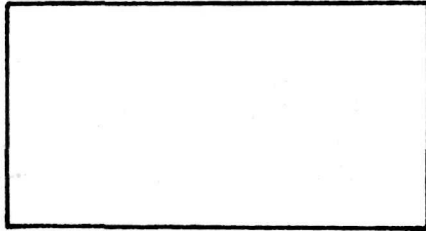
**Future Management
Activities**

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
B	Timber or Timber/Grazing	Mod	Rd Na Ap
E	Grazing/Wildlife	Par Ret	Rd Na Ap
G	Semi-Primitive Recreation	Par Ret	Semi- Primitive
R	Riparian Zone	Same as adjacent	

LITTLE BELT MOUNTAINS

EAST LITTLE BELTS



Timber
Sale

Year

Approx.
Acres
Harvested

Approx.
Vol. Million
Board Feet

Roberts Creek

1983

100

0.8

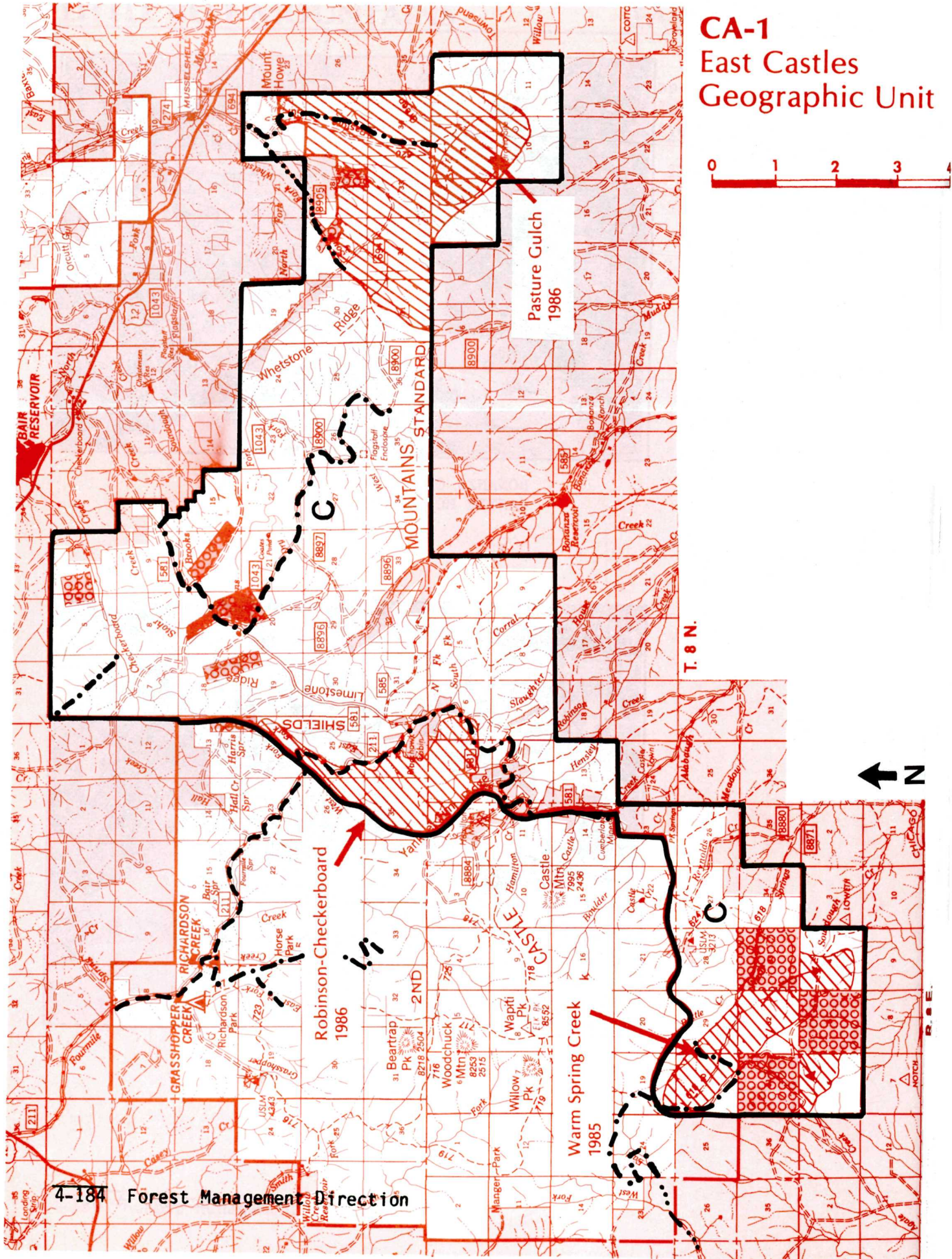


BONANZA CREEK FALLS IN THE
CASTLE MOUNTAINS.



65 HEAD OF ELK GRAZING IN
EAST LITTLE BELTS.

CA-1 East Castles Geographic Unit



EAST CASTLES GEOGRAPHIC UNIT DESCRIPTION

Map Number CA-1

The East Castles Geographic Unit (CA-1) includes portions of the Warm Springs, Checkerboard, and Flagstaff Creek drainages, Limestone and Whetstone Ridge, and Elk Park.

Slopes are mostly moderate in a mosaic of grasslands interspersed with timber stands of primarily Douglas fir. One portion of the area contains extensive unbroken lodgepole pine. There are also large expansive mountain meadows in the area.

Most of the area is big game summer range with some elk and mule deer winter range on National Forest lands. Several elk calving areas are also in the unit.

The major trail in the unit is the Warm Springs Creek Trail (618).

Lode claim mining is prevalent in the south and central portion of the unit. Extensive prospects are evident.

Past Management Activities

A small amount of timber has been harvested in Sourdough and Pasture Gulch drainages. Some other harvest for mining activities has also taken place. An area in Pasture Gulch burned in 1971.

Cattle allotments were used to graze the large mountain meadows.

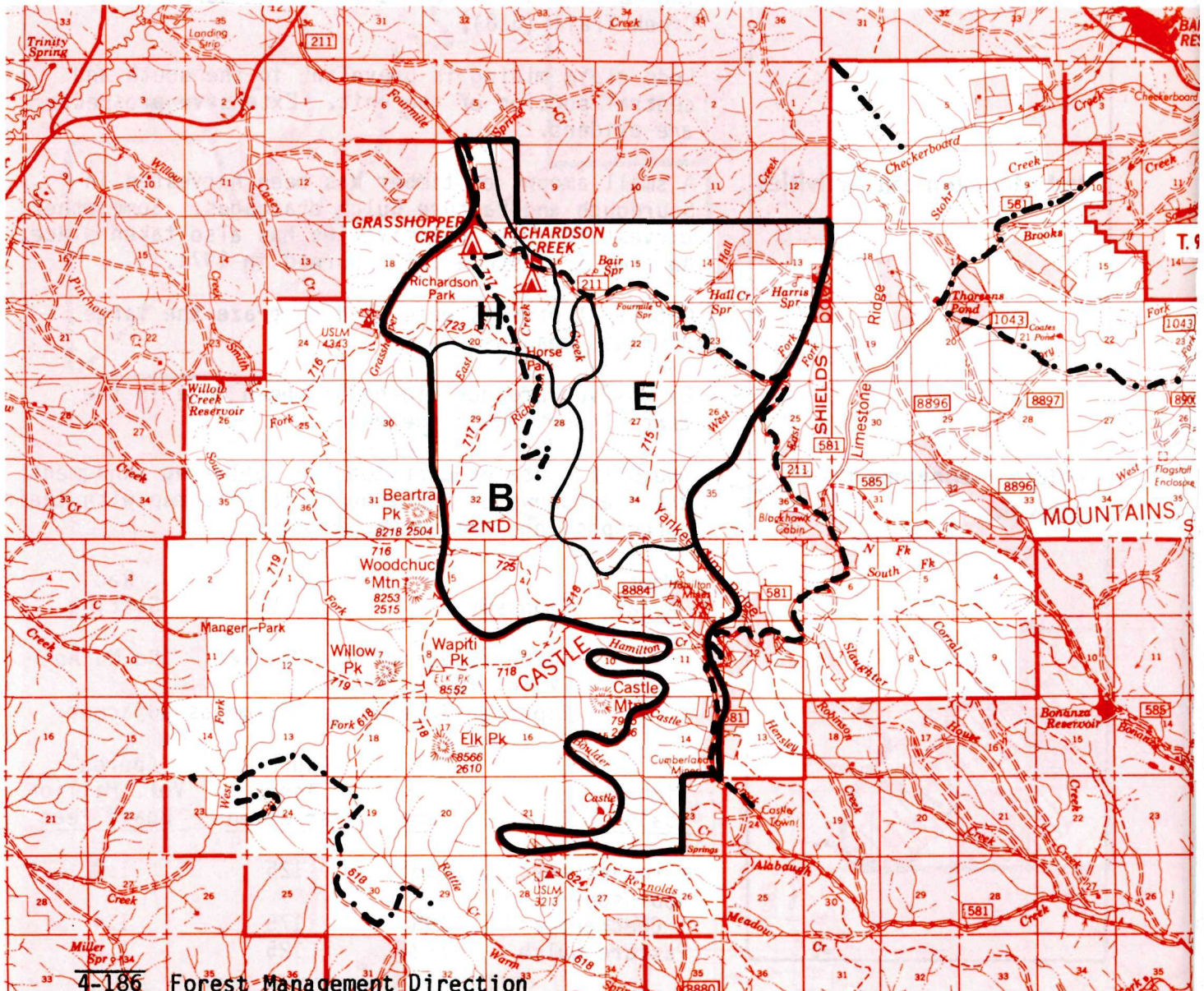
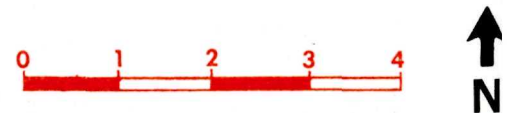
Extensive hardrock mining has been done in the central portion of the unit.

Future Management Activities

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
C	Timber/Grazing/ Wildlife	Par Ret	Rd Na Ap
R	Riparian Zone	Same as adjacent	
<u>Timber Sale</u>	<u>Year</u>	<u>Approx. Acres Harvested</u>	<u>Approx. Vol. Million Board Feet</u>
Warm Springs Cr. Robinson-	1985	125	1.0
Checkerboard	1986	175	1.4
Pasture Gulch	1986	125	1.0

CA-2 Richardson — Grasshopper Geographic Unit



4-186 Forest Management Direction

R. 8 E.

**RICHARDSON —
GRASSHOPPER
GEOGRAPHIC UNIT
DESCRIPTION**

Map Number CA-2

Past Management Activities

**Future Management
Activities**

The Richardson-Grasshopper Geographic Unit (CA-2) includes the north central Castles and portions of Beartrap, Fourmile, Richardson, and Grasshopper Creek drainages.

The unit consists of moderate slopes with lodgepole, Douglas fir, spruce, aspen, and grass. Notable features are the castlelike rocks and Smith Meadows.

Numerous trails cross the unit. One road, Fourmile Road (211), provides access to the Castle Mountains.

Post, pole, and some sawlog harvesting has taken place in the past. The unit along with most of the rest of the Castles burned at the turn of the century.

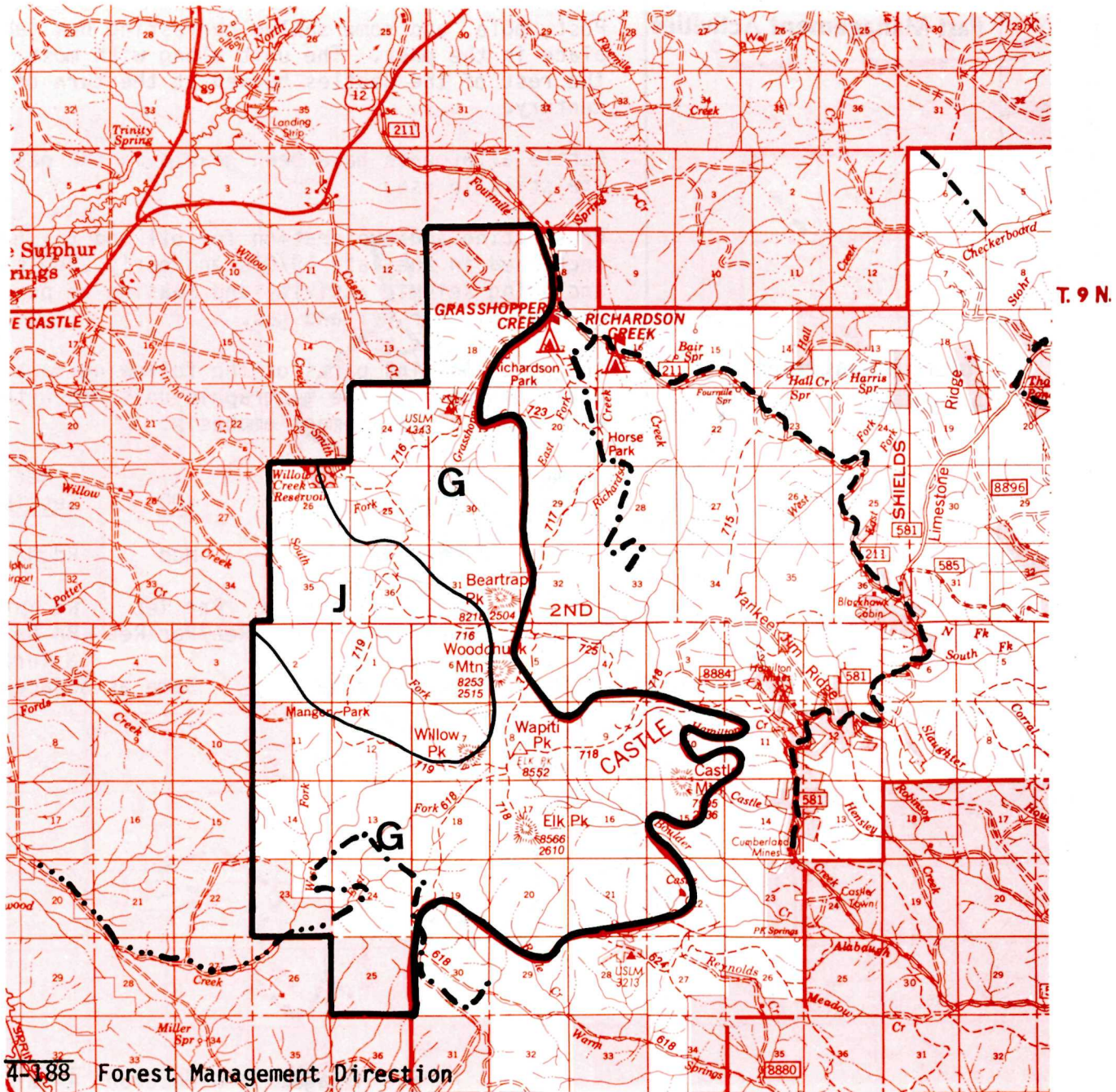
Cattle allotments have been grazed in the past and are still in use.

Prospecting and exploration for oil and gas has increased in the late 1970's and early 1980's, including seismic activity and leasing of portions of the unit for oil and gas.

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
B	Timber or Timber/Grazing	Mod	Rd Na Ap
E	Grazing/Wildlife	Par Ret	Rd Na Ap
H	Developed Recreation	Ret/Par Ret	Rd Na Ap & Rural
R	Riparian Zone	Same as	adjacent

CA-3 Woodchuck Mountain Geographic Unit



**WOODCHUCK MOUNTAIN
GEOGRAPHIC UNIT
DESCRIPTION**
Map Number CA-3
Past Management Activities
**Future Management
Activities**

The Woodchuck Mountain Geographic Unit (CA-3) includes the west portion of the Castles, Woodchuck Mountain, and portions of Willow, Cottonwood, and Grasshopper Creeks and Manger Park.

Moderate slopes have lodgepole pine and a small amount of Douglas fir and grass. Big game summer range exists in the area.

The castle-like rocks and Crystal Cave are noted features of the unit. Numerous trails run through the unit. There are no developed recreation sites.

The Willow Creek watershed is the municipal watershed for White Sulphur Springs.

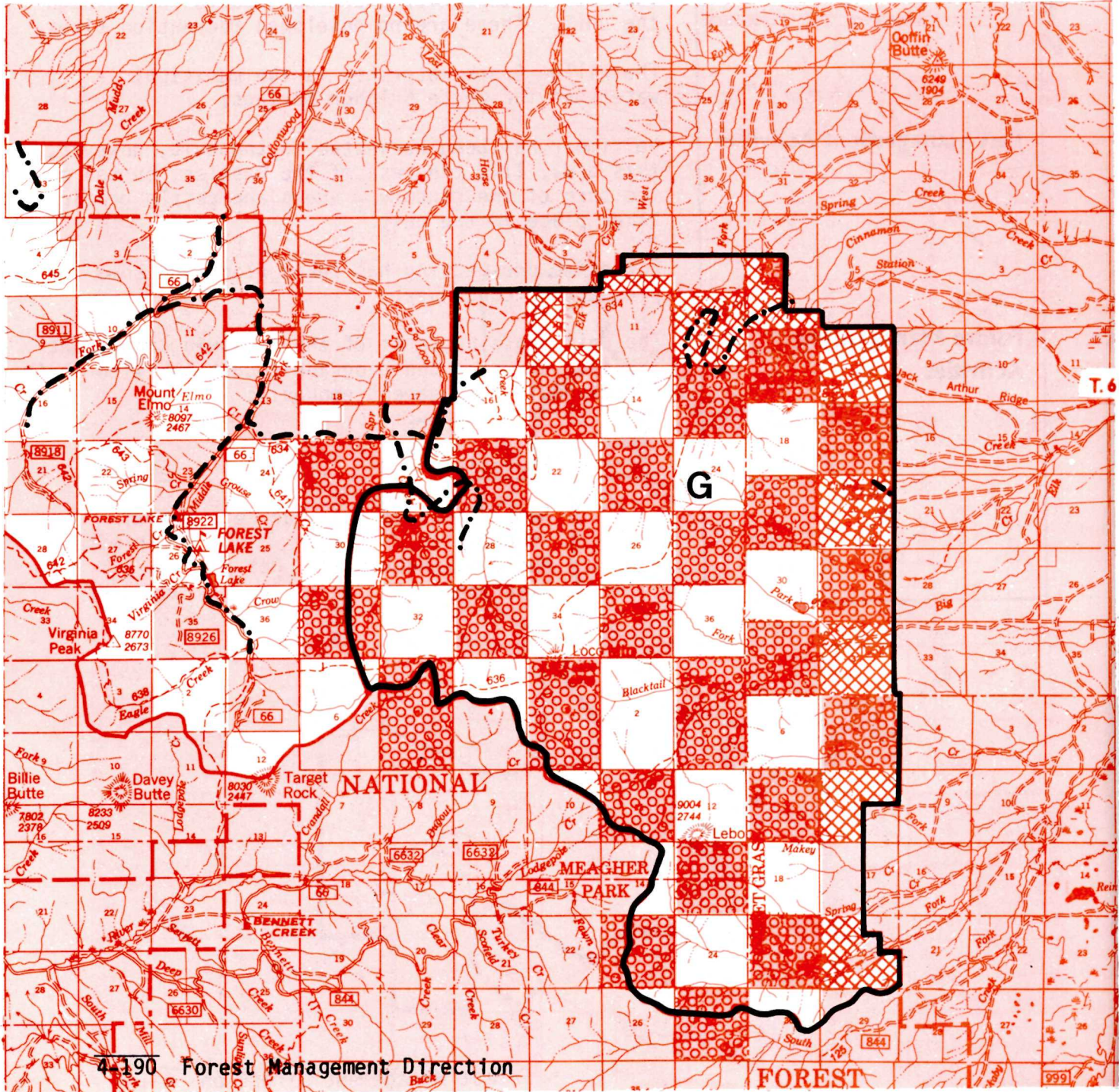
No timber has been harvested in the unit, however, this area, like the rest of the Castles, burned at the turn of the century. Sheep and cattle grazing takes place in the unit.

Extensive prospecting has taken place and some prospecting continues.

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
G	Semi-Primitive Recreation	Par Ret	Semi- Primitive
J	Municipal Watershed	Ret	
R	Riparian Zone	Same as adjacent	

CZ-1 Loco Mountain Geographic Unit



4-190 Forest Management Direction

R.11 E.

**LOCO MOUNTAIN
GEOGRAPHIC UNIT
DESCRIPTION**
Map Number CZ-1

The Loco Mountain Geographic Unit (CZ-1) includes portions of Big Elk, and Miller Creek, American Fork Creek drainages, and Loco Mountain, Lebo Peak, and Cinnamon Peak.

The area is very steep. The interior of the unit is high elevation grassland-rock with isolated pockets of lodgepole pine and spruce. Along the boundary of the unit is steep grassland interspersed with Douglas fir.

The majority of the unit is elk and mule deer summer range with some winter range along the north and east Forest boundary.

A number of trails provide dispersed recreation, including Crow Creek Trail (636), Castle Creek Trail (641), and Loco Creek Trail (632). There are no developed sites in the unit.

Some oil and gas exploration has been done on private lands to the east. Some parcels in the unit are leased.

Past Management Activities

Some timber was harvested at the turn of century for homesteads. A small fire burned in O'Hearn Creek in the 1970's.

Access is limited to some 4-wheel drive roads along the north and east boundary.

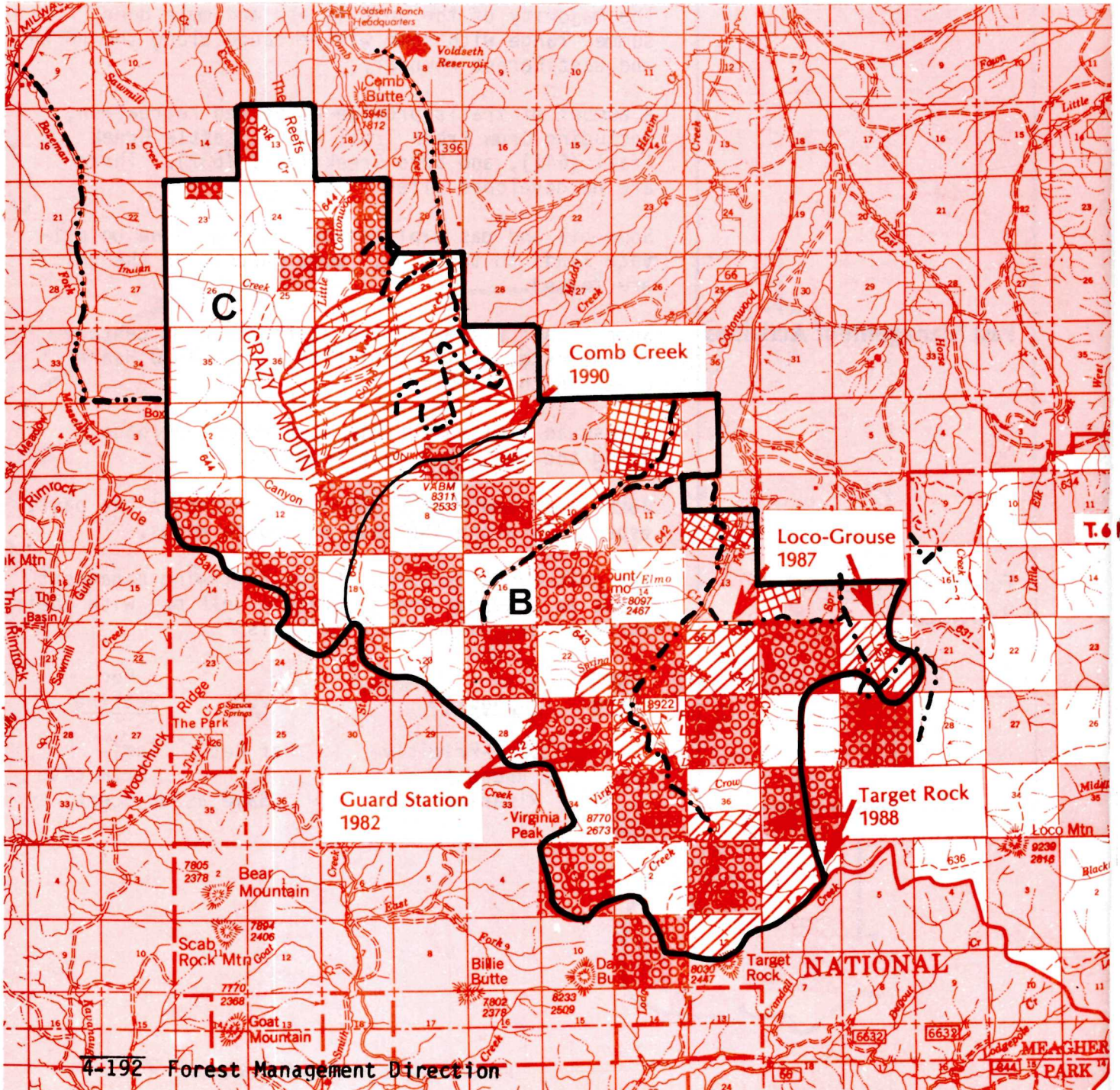
Both sheep and cattle have been grazed in the past, especially along the east and north edges.

**Future Management
Activities**

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
G	Semi-Primitive Recreation	Par Ret	Semi- Primitive
R	Riparian Zone	Same as adjacent	

CZ-2 Forest Lake Geographic Unit



R. 10 E.

**FOREST LAKE
GEOGRAPHIC UNIT
DESCRIPTION**
Map Number CZ-2

The Forest Lake Geographic Unit (CZ-2) includes portions of the Cottonwood and Comb Creek drainages, Mt. Elmo, Target Rock, Virginia Peak, and Bald Ridge. The unit is a checkerboard of National Forest and private ownership. Forest Lake is a local unique feature in that there are few mountain lakes in the area.

The unit has moderate to steep slopes, generally moderate, primarily lodgepole pine and subalpine fir interspersed with high elevation grassland. The majority of the unit is elk and mule deer summer range with some winter range along the north and west boundary of the unit.

A number of trails in the unit provide dispersed recreation, including Mt. Elmo Trail (642), Virginia Peak Trail (635), and Eagle Creek Trail (638). The Forest Lake Campground site is presently undeveloped. One powerline runs through the northwest corner of the area.

Several parcels are leased for oil and gas.

Past Management Activities

A moderate amount of timber has been harvested in the past. Timber has also been harvested on private land in the area. The West Fork of Cottonwood Fire burned approximately 600 acres in 1966.

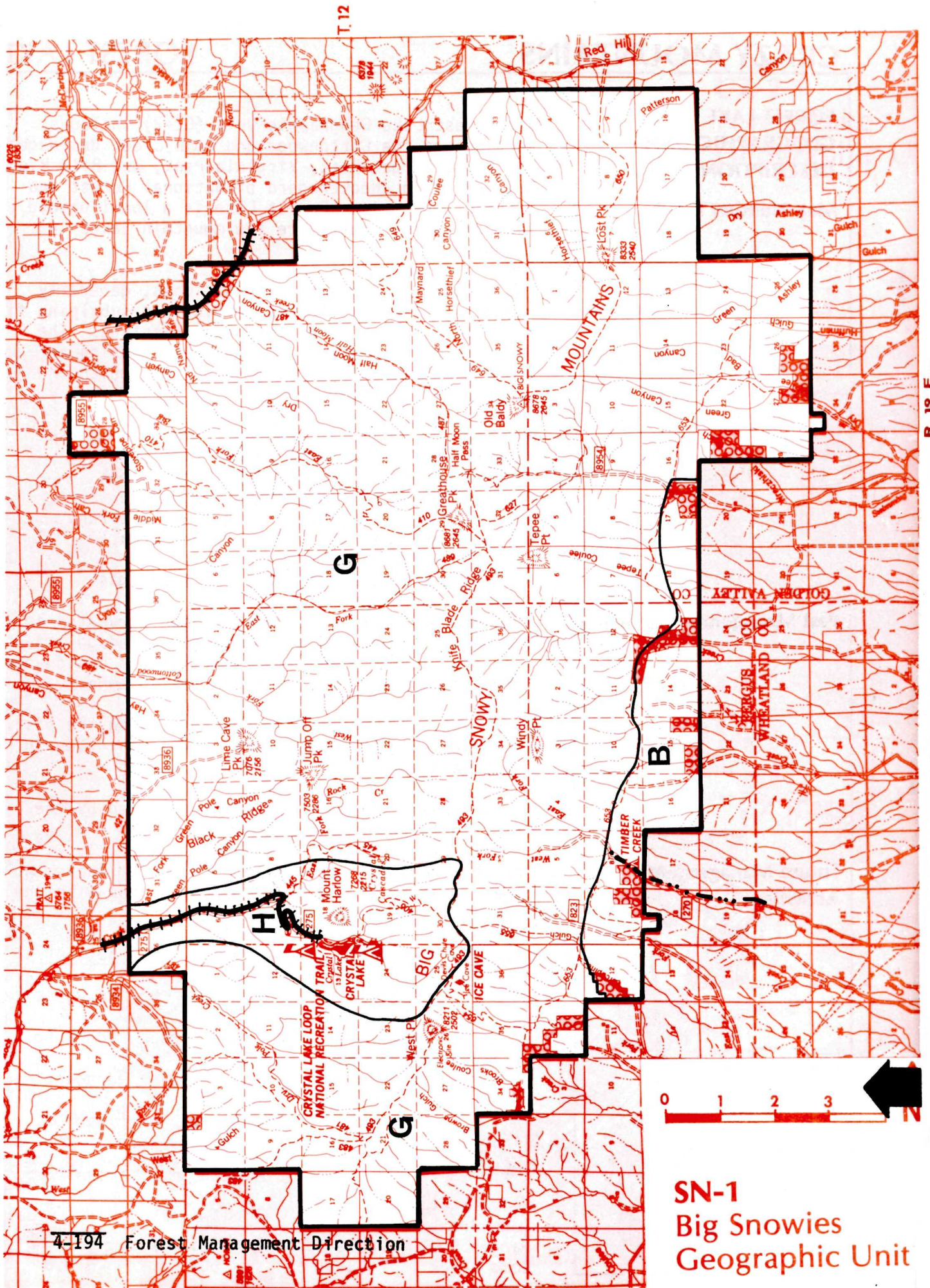
Both cattle and sheep have been grazed in the past. Fisheries habitat improvement work is going on in Cottonwood Creek.

The north end of the area will be crossed by the Colstrip Twin 500 KV transmission line.

**Future Management
Activities**

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
B	Timber or Timber/Grazing	Mod	Rd Na Ap
C	Timber/Grazing/ Wildlife	Par Ret	Rd Na Ap
R	Riparian Zone	Same as adjacent	
<u>Timber Sale</u>	<u>Year</u>	<u>Approx. Acres Harvested</u>	<u>Approx. Vol. Million Board Feet</u>
Guard Station	1982	175	1.4
Loco-Grouse	1987	300	2.4
Target Rock	1988	325	2.6
Comb Creek	1990	500	4.0



4-194 Forest Management Direction

SN-1
Big Snowies
Geographic Unit

SNOWY MOUNTAINS

BIG SNOWIES

BIG SNOWIES GEOGRAPHIC UNIT DESCRIPTION

Map Number SN-1

The Big Snowies Geographic Unit (SN-1) includes the National Forest portion of the Big Snowy Mountains, including Careless and Swimming Woman Canyons and Knife Blade Ridge. One of the dominate features of the Big Snowies is Crystal Lake. The Big Snowies Wilderness Study Area is located within this geographical unit. It will be managed to protect its wilderness characteristics until Congress acts on the Forest Service's recommendation.

The mountains in the area have many flat topped ridges of alpine tundra with Douglas fir on slopes and mixed Douglas fir/grassland on lower slopes and benchlands. Slopes vary from steep sided rocky canyon walls to gentle benchlands. Major streams include Swimming Woman, Crystal Lake, Careless, and Timber Creeks. The unit has some winter range for mule deer along the southern slopes and some elk winter range at lower elevations though most elk winter on adjacent private lands. A small herd of mountain goats is found at higher elevations.

Oil and gas potential is low.

Past Management Activities

Commercial timber has been harvested in Browns Gulch, Niel Creek, Porcupine Gulch, Blake Creek, and Timber Creek. Accessible foothill lands have traditionally supplied building material, fencing material, and fuelwood to neighboring homesteads. Large areas of benchland in the southern Snowies were planted to ponderosa pine, skotch pine, and Austrian pine in 1911 to 1914. Big game hunting for deer has been significant. Drainage bottoms and lower slopes are grazed by cattle and horses. Livestock are grazed under season long and rest rotation systems. Sheep were grazed at high elevations in earlier times.

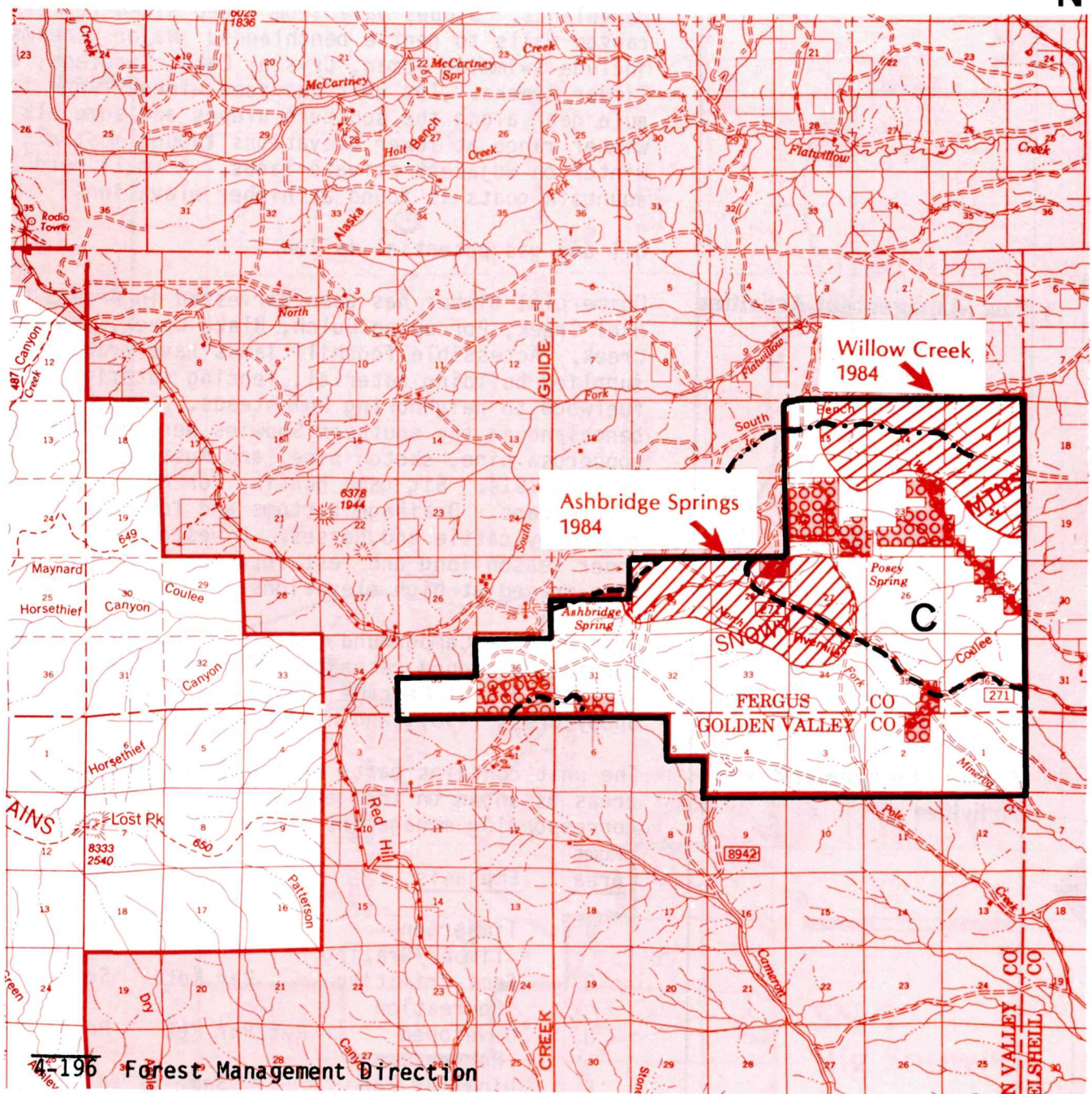
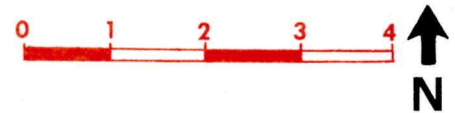
Crystal Lake Campground and Grandview Picnic Area provide developed recreation opportunities. Trails include Crystal Cascade (445), Ice Caves (654), Snowy Crest (493), and Halfmoon (487).

Future Management Activities

The unit contains parts of the following managment areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
B	Timber or Timber/Grazing	Mod	Rd Na Ap
G	Semi-Primitive Recreation	Par Ret	Semi- Primitive
H	Developed Recreation	Ret/Par Ret	Rd Na Ap & Rur
R	Riparian Zone	Same as	adjacent

SN-2 Little Snowies Geographic Unit



SNOWY MOUNTAINS

LITTLE SNOWIES

LITTLE SNOWIES GEOGRAPHIC UNIT DESCRIPTION

Map Number SN-2

This Little Snowies Geographic Unit (SN-2) includes the National Forest lands of the Little Snowy Mountains.

Major drainages are Willow Creek and North Fork of Pole Creek, which drain to the south.

The mountains in the Little Snowies are low rolling areas of ponderosa pine. Slopes are gentle, often nearly flat, on most of the areas except for moderate slopes in drainages where creeks bisect the unit.

The entire unit is summer range for elk and mule and whitetail deer with winter range for a growing (over 70 animals) elk herd along the southern edge. Willow Creek provides winter range for whitetail deer. The unit also has a number of wild turkeys.

The unit has no trails or campgrounds.

Oil and gas potential is low.

Past Management Activities

There has been extensive harvest of a variety of wood products. Cattle graze throughout the unit. Big game hunting is a popular activity. Residents of many now abandoned homesteads used roads and trails which cross the National Forest to reach Ryegate, Roundup, and other nearby towns.

Future Management Activities

The unit contains parts of the following management areas as shown on the geographic unit map with their corresponding management emphasis:

<u>Mgmt Area</u>	<u>Emphasis</u>	<u>VQO</u>	<u>Rec Setting</u>
C	Timber/Grazing/ Wildlife	Par Ret	Rd Na Ap
R	Riparian Zone	Same as adjacent	
<u>Timber Sale</u>	<u>Year</u>	<u>Approx. Acres Harvested</u>	<u>Approx. Vol. Million Board Feet</u>
Ashbridge Springs	1984	125	1.0
Willow Creek	1984	185	1.5

FOREST PLAN

CHAPTER V

MONITORING AND EVALUATION

Overview

This chapter lists the monitoring and evaluation requirements to provide Forest managers and the public information on the progress of implementing the Forest Plan. Monitoring and evaluation compares the results being achieved to those projected in the plan. Outputs, management prescriptions, environmental effects, and costs are all considered.

Monitoring and evaluation will determine:

- if the Forest is meeting its planned goals and objectives;
- if the Forest's planned programs and activities are resolving public issues and management concerns;
- if the effects of implementing the Forest Plan are occurring as predicted;
- if the cost and workforce needs of implementing the plan are as predicted;
- if Forest-wide management direction, standards, and guidelines are being followed.

To do this, a comparison will be made of the overall progress in implementing the Forest Plan as well as whether the overall relationship on which the plan is based have changed with time. When changes do occur, they will be evaluated as to their significance and appropriate amendments or revisions to the Forest Plan will be made as needed.

When monitoring and evaluation are reported, their significance will be evaluated through the Decision Flow Diagram shown in Figure 5.1. Monitoring and evaluation results will be documented and made available for public review.

Research needs of the Forest to help meet the goals and objectives of the Forest Plan are also listed.

FIGURE 5.1

DECISION FLOW DIAGRAM FOR MONITORING AND EVALUATION

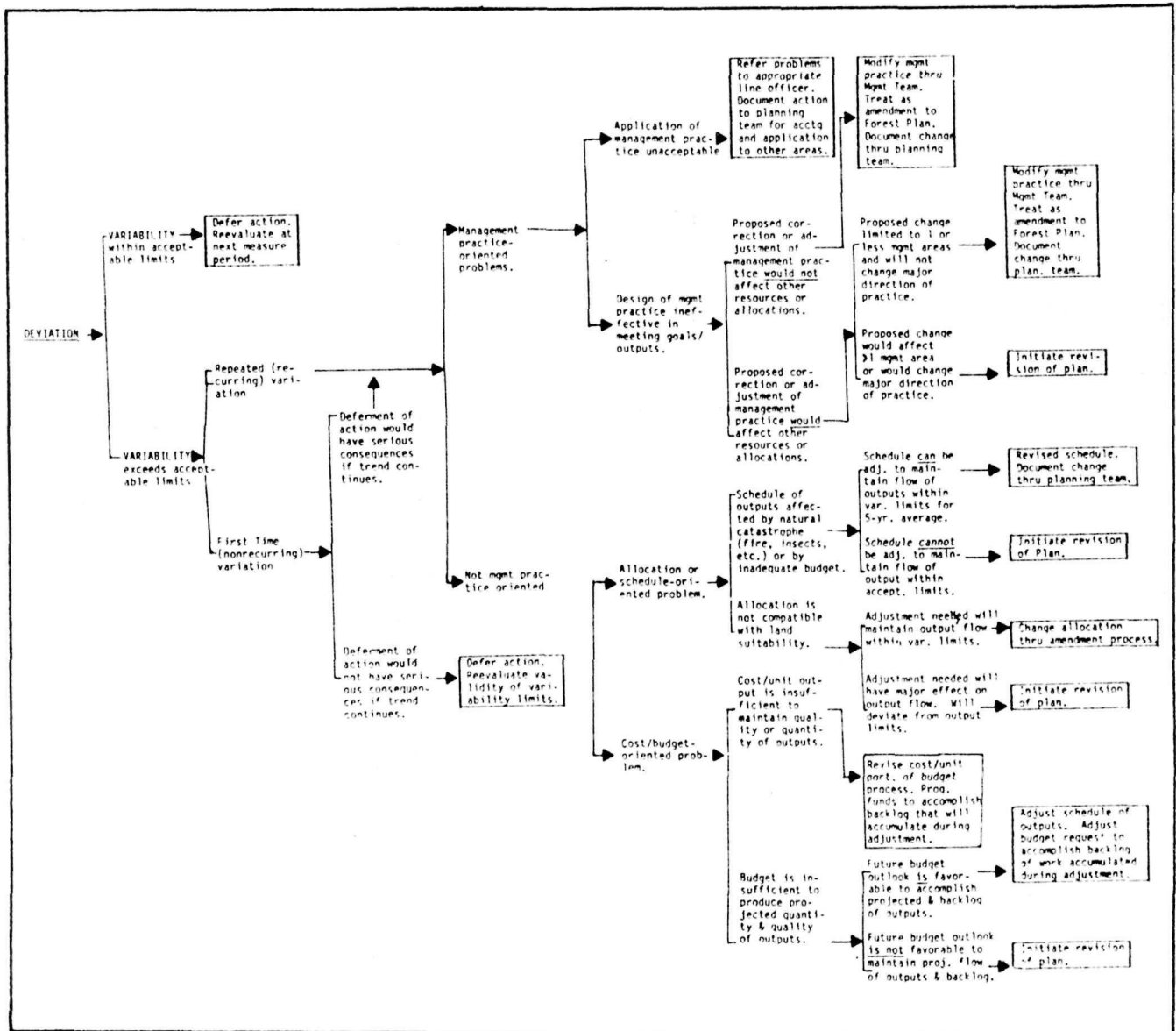


TABLE 5.1

MONITORING AND EVALUATION
REQUIREMENTS

Item	Element	Output, Management Prescription, Effects, or Costs To Be Measured	Data Source	Annual Cost	1/ Expected Precision	2/ Expected Reliability	3/ Frequency of Measurement	Reporting Period	Variability Which Would Initiate Further Evaluation
A-1	Recreation	Recreation Opportunity Spectrum being implemented	RIM Report, EA's	minor	Low-Mod	Low-Mod	100%/5 years	Annual	-10% of projected ROS Class.
A-2	Recreation	Direction meets expectation of visitor.	Visitor contacts, Inspections, Plans	\$5,000	Moderate	Moderate	Annual	Annual	Adverse comments or correspondence.
A-3	Recreation	Critical attributes being protected from degradation.	Surveys, Monitoring, & Evaluation	\$2,000	Moderate	Moderate	Annual	Annual	Deviations from approved plans. 10 Team reviews.
A-4	Recreation	Actual use of developed and dispersed recreation as compares with projected use levels.	RIM Report	\$1,000	Low	Low	Annual	Annual	+25% variance.
A-5	Recreation	Condition of developed sites.	RIM Report, Inspections, Compare to standards Site Plans	\$5,000	High	High	Annual	Annual	Less than acceptable standards, public safety hazards not corrected by 1990, poor conditions not corrected by 2005.
A-6	Recreation	Recreation Opportunity	Recreation Opportunity Guide	No Increase	High	High	Annual	Annual	Failure to complete by 1985.
A-7	Recreation	Off-road vehicle damage	Travel Plan, ORV Monitoring Plan	\$2,000	Moderate	Moderate	Annual	Annual	Conflicts with Forest Management Area goals.
A-8	Recreation	Condition of visual resource meets standards in plan.	Forest Plan VQU Inventory	\$2,000	Mod-High	Mod-High	50% Sample Annually	Annual	Deviation from approved plan, 10 Team review, VQU standards established.
A-9	Recreation	Cultural Resource Protection	Cultural Inventory	\$2,000	Moderate	Moderate	Once/5 years	Annual	Less than 10% accomplishment/year
B-1	Wilderness	Maintenance of existing quality of ecosystem.	Inspection	\$3,000	Moderate	Moderate	Annual	Annual	Degradation of environment.
B-2	Wilderness	Bob Marshall-Great Bear-Sagegoat Management Direction.	Annual Report	No Increase	High	High	Annual	Annual	Failure to meet time table established in Appendix D.
		Population Trends of Management Indicator Species:							
C-1	Wildlife & Fish	T&E Species;	MDFW&P, Border Grizzly Prjct Grizzly Bear Recovery & Wolf Recovery Reports	\$2,000	High	High	Annual	Annual	Change of more than 10% from estimated levels.
C-2	Wildlife & Fish	Elk-winter range capacity and habitat effectiveness;	MDFW&P annual progress rpts and Eastside Elk/Timber Relationship models	No Increase	High	High	Annually	3 years	Change of more than 10% from estimated levels.
C-3	Wildlife & Fish	Other Game Species;	MDFW&P annual progress rpt	No Increase	High	High	Annually	5 Years	Decrease in estimated population of more than 10% from previous reporting period (5 years).

MONITORING AND EVALUATION REQUIREMENTS

TABLE 5.1

Item	Element	Output, Management Prescription, Effects, Or Costs To Be Measured	Data Source	Annual Cost	1/ Expected Precision	2/ Expected Reliability	3/ Frequency of Measurement	Reporting Period	Variability Which Would Initiate Further Evaluation
C-4	Wildlife & Fish	Furbearers (Beaver);	MDFWBP annual progress report	No Increase	Moderate	Moderate	Annually	5 Years	Decrease in estimated population of more than 10% from previous reporting period.
C-5	Wildlife & Fish	Old Growth (Goshawk);	Check known nesting territories	\$500	Moderate	Low	Bi-Annually	2 Years	Abandonment of 2 or more known territories from previous survey.
C-6	Wildlife & Fish	Cavity Nesting Habitat;	Forest dead-wood mgmt policy. Field observation. Photo interpretation.	No Increase	Moderate	Moderate	3 Years	3 Years	Significant deviations from goals for cavity nesting habitat.
C-7	Wildlife & Fish	Fish (Cutthroat Trout, Brook Trout) Habitat quality and fish population trends.	MDFWBP survey. Water Quality monitoring stream and lake habitat surveys	\$2000	High	Moderate	Annually	3 Years	Significant deviations from previous reporting period. Changes of more than 10% from estimated levels.
		Habitat Improvement Outputs:							
C-8	Wildlife & Fish	T & E;	Attainment Report	No Increase	High	High	Annually	Annually	-10% of target over 5-Year Average
		Fish;	Attainment Report						-20% of target over 5-Year Average
		Wildlife;	Attainment Report						-25% of target over 5-Year Average
C-9	Wildlife & Fish	Oil and Gas Activity/Wildlife on Rocky Mountain Front.	Inter-Agency Monitor Evaluation	No Increase	High	High	Annually	Annually	Failure to develop or implement guidelines.
D-1	Range	Range Outputs.	Annual Grazing Statistical Rpt	No Increase	Moderate	Moderate	Annually	Annually	+10% of target
D-2	Range	Range Conditions.	Range Analysis and condition-trend transects	\$500	Moderate	Moderate	21 allotments	Annually	Significant increase in acres of range in fair or poor condition over the previous year at the 10% probability level
D-3	Range	Range Trends.	Range Analysis and condition-trend transects	\$500	Moderate	Moderate	21 allotments	Annually	Significant increase in acres of range downward trend over the previous year at the 10% probability level.
D-4	Range	Supply	Annual Grazing Statistical Report	\$500	Moderate	Moderate	Annually	Annually	Significant decrease in suitable range acres below the previous year at the 10% probability level
D-5	Range	Allotment Management Plan Status	Range Management Information System				Annually	5-Year	More than 10% of the allotment plans are outdated.
E-1	Timber	Assure silvicultural management prescriptions are best suited to management area goals with all impacts considered.	Environmental analysis, plus presale and administrative reviews, and specialist involvement from functional areas.	No Increase	High	High	100% Sample Annually	Unscheduled	A departure from management prescription.
E-2	Timber	Assure prescription not primarily chosen on basis of greatest dollar return or greatest timber output.	Environmental analysis.	No Increase	Low	Low	50% Sample Annually	5 Years	Test management area against those specified.

MONITORING AND EVALUATION REQUIREMENTS

TABLE 5.1

Item	Element	Output, Management Prescription, Effects, Or Costs To Be Measured	Data Source	Annual Cost	1/ Expected Precision	2/ Expected Reliability	3/ Frequency of Measurement	Reporting Period	Variability Which Would Initiate Further Evaluation
E-3	Timber	Assure prescriptions consider residual trees and adjacent stands.	Silvicultural prescriptions, environmental analysis, presale and administrative reviews, survival exams of silvicultural project reviews	No Increase	Low	Low	50% Sample Annually	Annually	Unacceptable results of an ID Team review.
E-4	Timber	Assure prescriptions are practical.	Environmental analysis, presale, and administrative reviews.	No Increase	Moderate	Moderate	25% Sample Annually	Annually	Unacceptable results of an ID Team review.
E-5	Timber	Assure openings comply with size limits and are periodically evaluated for appropriateness.	Environmental analysis, presale and administrative reviews, and post-project reviews	No Increase	Moderate	Moderate	100% Sample Annually	Annually	Unacceptable results of an ID Team review.
E-6	Timber	Assure selected alternative provides for plant/animal community diversity.	Stand examination, reforestation reports.	No Increase	High	High	50% Sample 4th year following regeneration	5 Years	Unacceptable results of an ID Team review.
E-7	Timber	Assure timber sold does not exceed allowable sale quantity for 10-year period.	5-year sale program, Gates system, post-sale review.	No Increase	High	High	100% Sample Annually	Annually	+20% Annually or +10% over a 5-year period.
E-8	Timber	Assure restocking within 5 years.	Silvicultural prescriptions, survival exams, TSMRS.	No Increase	High	High	100% Sample Annually	5-10 Yr. reports	Unacceptable results of an ID Team review.
E-9	Timber	Assure accomplishment of thinning and other silvicultural treatments as projected in plan.	Silvicultural prescriptions, TSMRS.	No Increase	High	High	50% Sample Annually	5 Years	Any negative deviation over a 5-year period.
E-10	Timber	Insure harvest by even-age management is compatible with resource values.	Environmental analysis, administrative reviews, survival exams, TSMRS.	No Increase	Moderate	Moderate	50% Sample Annually	Annually	Unacceptable results of an ID Team review.
E-11	Timber	Firewood removal	Annual Report	No Increase	Moderate	Moderate	Annually	Annually	Use increase exceeds 10% per year.
E-12	Timber	Evaluate availability of lands classified as suitable/unsuitable	Environmental Analysis; Stage I examination; timber sale reports	1,000	Moderate	Moderate	5-Year	5-Year	+5% change in acreage.
F-1	Water & Soil	Surface and ground water quality.	Sample of representative streams	\$18,000	Low	Mod-Low	Seasonal Continuous Of Selected Streams	Annually	Exceeds State or Federal Water Quality Standards.
F-2	Water & Soil	Surface and ground water quality.	Correlated With Water Quality Monitoring	\$4,500	Low	Low	Seasonal Continuous Of Selected Streams	Annually	Exceeds expected variations by 30%.
F-3	Water & Soil	Soil and water restoration needs.	New inventory	\$5,000	Moderate	Moderate	By Oct. 1982	Annually	A significant increase in total program.
F-4	Water & Soil	Elimination of soil and water restoration backlog	Soil and Water Reports	\$2,000	Moderate	Moderate	By 2000	5 Years	Less than 20% accomplishment.

MONITORING AND EVALUATION REQUIREMENTS

TABLE 5.1

Item	Element	Output, Management Prescription, Effects, Or Costs To Be Measured	Data Source	Annual Cost	1/ Expected Precision	2/ Expected Reliability	3/ Frequency of Measurement	Reporting Period	Variability Which Would Initiate Further Evaluation
F-5	Water & Soil	Watershed Conditions	Administrative reviews	\$2,000	Moderate	Moderate	10% Sample	Annually	Unacceptable management practices.
F-6	Water & Soil	Riparian areas, flood plains, and wetlands.	Administrative reviews	\$2,000	Mod-Low	Mod-Low	Annually	Annually	Unacceptable results of an ID team review.
F-7	Water & Soil	Riparian areas/streams.	Inventory	\$10,000	High	High	Once every 10 years	Annually	Less than 5% accomplishment.
F-8	Water & Soil	Public Health	Water Systems	No Increase	High	High	Monthly	Annually	Exceeds State or Federal drinking water standards per year.
F-9	Water & Soil	Insure establishment of vegetation on temporary roads within 5 years.	Environmental analysis, and silvicultural project reviews incl. engineers and soil & water specialist.	No Increase	High	High	75% Sample Annually 2 years following termination of road use.	Annually	Unacceptable results of an ID team review.
G-1	Minerals	Mining Activities.	Notice of Intent Operating Plans	No Increase	Moderate	Moderate	100% annually of active operations	Annually	Adverse effect of Forest Service project on mineral activities or revision or departure from approved operation plans.
G-2	Minerals	Prospecting Permits.	Application for Permit	No Increase	High	High	100% of active operations on all least bi-weekly basis.	Annually	Adverse effect upon surface resources.
G-3	Minerals	Drilling Permits	Application For Permit	No Increase	High	High	100% of active operations on at least weekly basis	Annually	Adverse effect upon surface resources.
G-4	Minerals	Rehabilitation of disturbed areas	Completion of Operations	No Increase	High	High	Weekly basis during rehabilitation. A final inspection will be made within 5-years after rehabilitation has been completed.	Annually	Failure to rehabilitate more than 10% of disturbed areas.
J-1	Lands	Compliance with use permits	Case Folders Forest Service Manual	Minor	High	High	As Needed	Annually	Unacceptable results or deviation from permits.
J-2	Lands	Right-of-way Easements Accomplishment	5-Year R/W Program & Forest Plan	\$1,000	High	High	Annually	Annually	Less than 75% accomplishment of 5-Year Program.
J-3	Lands	Land Ownership Adjustment Accomplishment	Land Adjustment Plan	\$1,000	High	High	Annually	Annually	Less than 75% accomplishment of 5-Year Program.
L-1	Facilities	Road and Trail Construction/ Reconstruction; Local Roads; Trails; Arterial/Collector Roads	Travel Inventory System	\$500	High	High	Annually	Annually	+20% of programmed construction/ reconstruction accomplished.
L-2	Facilities	Miles of Roads Open To Public Use	Travel Inventory System	\$500	High	High	Annually	Annually	+20% of target miles to be left open to public.

MONITORING AND EVALUATION REQUIREMENTS

TABLE 5.1

Item	Element	Output, Management Prescription, Effects, Or Costs To Be Measured	Data Source	Annual Cost	1/ Expected Precision	2/ Expected Reliability	3/ Frequency of Measurement	Reporting Period	Variability Which Would Initiate Further Evaluation
1-1	All	Verification of unit costs used in plan compared to those costs expressed in the plan.	Timber sale appraisals, contracts, allotments, management plans, cost/output for various projects.	\$500	High	High	100% Sample Annually	5 Years	In general, $\pm 25\%$; however, very large cost items such as stump-truck costs would have a smaller degree of acceptable variability.
1-2	All	Effects of emerging issues or changing social values.	I&I Plan, issue and target group analyses.	No Increase	High	Moderate	Annually	Continuous	If issue cannot be dealt with under the Forest Information and Involvement Plan.
1-3	All	Evaluate lands identified as not meeting physical or biological characteristics used in initial allocations.	Environmental analysis, ID Team evaluation, Ranger District assessments, timber sale feasibility analyses.	No Increase	High	High	Annually	Continuous	All changes will be evaluated annually.
P-1	Protection	Assure harvest emphasizes the removal of high risk for mountain pine beetle attack.	Silvicultural prescriptions, survival, and silvicultural exams, ground and aerial surveys, post-sale reviews. TSMRS	No Increase	Moderate	High	100% Sample Annually	5 Years	Unacceptable results of an ID team review, or if less than 70% of timber volume is programmed from high risk mountain pine beetle stands.
P-2	Protection	Acres and volume of insect and disease infestations	FPM aerial observation by R.O. Entomologists	No Increase	High	Moderate	Annually	5 Years	Introduction of new insect or disease or spread of an existing insect or disease.
P-3	Protection	Assure prescribed fire meets air quality guidelines and standards.	Form RI-5150-1 project reports	\$2,000	High	High	100% Sample Annually	Annually	$\pm$ beyond standard guidelines.
P-4	Protection	Fuel treatment outputs.	Accomplishment Reports.	No Increase	High	High	100 % Sample Annually	Annually	$\pm 25\%$ of programmed targets.
1/ Expected precision is the exactness of accuracy with which the data will be collected. 2/ Expected reliability is the degree the monitoring accurately reflects the total Forest situation. 3/ Frequency of measurement is the schedule of a sampling frequency.									

RESEARCH NEEDS

Wilderness B-1

The following research needs have been identified during the Forest planning process. These are the specific research needs necessary to meet the goals and objectives of the Forest Plan.

Carrying capacity of the Bob Marshall/Great Bear/ and Scapegoat Wilderness Complex (See Appendix D). The amount and type of use that is consistent with some measure of quality in recreation experience.

Wildlife C-1

Effects of oil and gas activities on wildlife, especially T&E species (See Forest Management Guideline C-3).

Watersheds

Effects of timber management and other developmental activities on watersheds.

Insect and Disease P-1

Effects of the removal of high risk stands and reducing possible losses from mountain pine beetle attacks.

FOREST PLAN

APPENDICES

Appendix A	10-Year Timber Sale Program	A-1
Appendix B	Land Exchange	B-1
Appendix C	Right-of-Way Acquisition	C-1
Appendix D	Bob Marshall-Great Bear-Scapegoat Wilderness Management Direction	D-1
Appendix E	Inter-Agency Wildlife Monitor/ Evaluation Program	E-1

APPENDIX A

PROPOSED LEWIS & CLARK NATIONAL FOREST PLAN

10-YEAR TIMBER SALE PROGRAM

The following is the proposed Timber Sale Program to be offered for sale during the next 10 years. Sales are listed by district by fiscal year. The timber sales program is subject to revision upon approval by the Forest Supervisor. The small sales component is not subject to this approval since they are sold under the District Ranger's authority. Each year the Forest reviews the timber sale program and adds another year's sales to the program.

APPENDIX A

LEWIS AND CLARK 10-YEAR TIMBER SALE PROGRAM

	FY 82		FY 83		FY 84		FY 85		FY 86	
DISTRICT	SALE	VOL	SALE	VOL	SALE	VOL	SALE	VOL	SALE	VOL
ROCKY MOUNTAIN	Green Gulch	1.3	Lower Pike Cr.	1.2	Sawmill Flats	0.8	Petty Cr.	2.0	Olney Cr.	2.0
	Small Sales	0.3	Small Sales	0.1	Small Sales	0.1	Small Sales	0.1	Small Sales	0.1
	Salvage	0.3	Salvage	0.3	Salvage	0.3	Salvage	0.3	Salvage	0.3
Subtotal		1.9		1.6		1.2		2.4		2.4
JUDITH	Lower Dry Wolf	3.2	Big Hill Select	0.5	Bear Park	5.0	Hay Canyon	1.0	Yogo	3.7
	Small Sales	0.8	Small Sales	0.5	Small Sales	0.8	Mixes Baldy	2.4	Small Sales	0.8
			Salvage Sales	0.3			Small Sales	0.8		
Subtotal		4.0		1.3		5.8		4.2		4.5
MUSSELSHELL	Guard Station	1.4	Roberts Cr.	0.8	Ashbridge Springs	1.0	Warm Springs	1.0	Pasture Gulch	1.0
	Basin-Whitetail	2.4	Small Sales	0.3	Willow Creek	1.5	Kents Gulch	1.0	Robinson-	
	Small Sales	0.4			Greasewood Park	1.0	Small Sales	0.3	Checkerboard	1.4
					Small Sales	0.3			Small Sales	0.3
Subtotal		4.2		1.1		3.8		2.3		2.7
KINGS HILL	Allen Park	1.7	Williams Mt.	7.0	Lake Creek	1.5	Jefferson	3.0	N. Fork Deadman	2.0
	Small Sales	1.0	Small Sales	1.0	Small Sales	1.0	Small Sales	1.0	Link Park	2.2
	Salvage	0.3	Salvage	0.3	Salvage	0.3	Salvage	0.3	Small Sales	1.0
									Salvage	0.3
Subtotal		3.0		8.3		2.8		4.3		5.5
TOTAL		12.9		12.3		13.6		13.2		15.1

	FY 87		FY 88		FY 89		FY 90		FY 91		FY 92	
DISTRICT	SALE	VOL	SALE	VOL	SALE	VOL	SALE	VOL	SALE	VOL	SALE	VOL
ROCKY MOUNTAIN	Hill Falls	1.1	Whiterock	1.1	Barley Basin	1.1	Walden Cr.	1.1	Wood Creek	1.1	Cyanide Creek	1.1
	Small Sales	0.1	Small Sales	0.1	Small Sales	0.1	Small Sales	0.1	Small Sales	0.1	Small Sales	0.1
	Salvage	0.3	Salvage	0.3	Salvage	0.3	Salvage	0.3	Salvage	0.3	Salvage	0.3
Subtotal		1.5		1.5		1.5		1.5		1.5		1.5
JUDITH	Placer-Snow	2.5	Ettien Ridge	2.0	Hoover Springs	3.2	South Burley	2.5	Clyde Park	3.2	Deadhorse	3.5
	Lower Sage	2.0	South Running		Small Sales	0.8	Hidden Lake	1.0	Small Sales	0.8	Small Sales	0.8
	Small Sales	0.8	Wolf	1.2			Small Sales	0.8				
			Small Sales	0.8								
Subtotal		5.3		4.0		4.0		4.3		4.0		4.3
MUSSELSHELL	Loco-Grouse	2.4	Target Rock	2.6	Mill-Lion	2.5	Comb Creek	4.0	North Fork	2.4	East Fork	2.8
	Small Sales	0.4	Small Sales	0.4	Small Sales	0.4	Small Sales	0.4	Musselshell	0.4	Spring Cr.	
									Small Sales	0.4	Small Sales	0.4
Subtotal		2.8		3.0		2.9		4.4		2.8		3.2
KINGS HILL	Quartzite-Moose	4.0	Miller Gulch	3.7	Central Park	1.8	Wood Mountain	3.7	Corridor	3.7	Head of Smith	3.7
	Small Sales	1.0	Small Sales	1.0	Mizzpah	1.9	Small Sales	1.0	Small Sales	1.0	Small Sales	1.0
	Salvage	0.3	Salvage	0.3	Small Sales	1.0	Salvage	0.3	Salvage	0.3	Salvage	0.3
					Salvage	0.3						
Subtotal		5.3		5.0		5.0		5.0		5.0		5.0
TOTAL		14.2		13.5		13.4		15.2		13.4		14.0

APPENDIX B

PROPOSED LEWIS & CLARK NATIONAL FOREST PLAN

LAND EXCHANGE

Acquisition

A Forest-wide management direction for land adjustment is included in the Forest Plan as Forest Management Guideline J-1, Land Ownership Adjustment. The following section is the standard developed by interacting that guideline with the Preferred Alternative.

In essence, the direction defined in the management guideline is a procedure for identifying and prioritizing desirable tracts for Forest acquisition. The procedure initially separates the Forest into eleven land adjustment areas, each containing unique management and/or land adjustment characteristics.

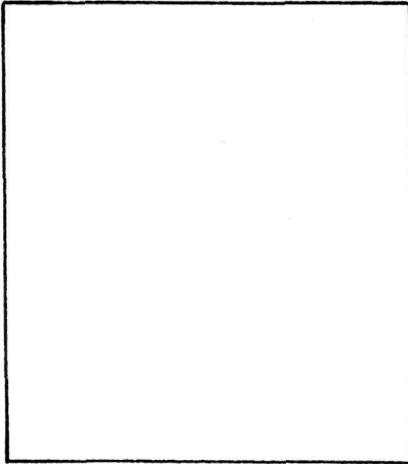
Secondly, the procedure considered the needs of six resource elements (Recreation, Wildlife, Range, Timber, Water, Minerals) in each of the eleven areas, and finally the intensity of management was recognized as a factor which would influence land adjustment desirability. Following the above procedure and the basic precept that all exchange proposals must meet the public interest requirements of Forest Service Manual 5430.3 and 5434, specific land parcels have been identified and given a priority rating of low (L), moderate (M), or high (H) desirability for exchange. This was done by matching the management prescription assigned to an area by the Preferred Alternative to the Management Guideline. These ratings are shown on Table B-1. The resulting prioritization of parcels is displayed on the geographic area maps and are tabulated by mountain range on Table B-2.

Although the parcels have been determined to be desirable for federal ownership, it is not the intent of the Forest Service to pursue this direction except on a willing grantor basis.

Other private lands which may enhance the management, administration, or production of Forest resources may be desirable for federal ownership. Acquisition of these lands should be examined in the context of specific exchange proposals.

Disposal

Because most land adjustment will occur via exchange with private parties, certain National Forest tracts have been identified as having potential for disposal. These are also shown on the geographic area maps and are tabulated on Table B-3.



Generally, these are small isolated parcels of National Forest surrounded by private land, which do not support Forest Plan direction and are not essential to management of the National Forest. Other areas would be considered for disposal if the offered private land would enhance management, administration, or production of Forest resources.

Some federal lands, administered by agencies other than the Forest Service, may also be available for selection by citizens participating in a land exchange.

TABLE B-1

DESIRABILITY RATINGS

LAND ADJUSTMENT AREAS												
Management Practice (Resource)	Management Prescription (Intensity)	No. 1 Hiway	No. 2 Rocky Mountains	No. 3 Smith River	No. 4 Tenderfoot	No. 5 Mineral Areas	No. 6 Belt Park	No. 7 Sheep Creek	No. 8 Warm Springs and Crazies	No. 9 Hiway 89 Corridor	No. 10 Scattered Patented Land	No. 11 Municipal Watersheds
TIMBER	High-HH,HL	3	2	3	1	3	3	3	1	3	2	3
	Moderate-MM,ML	3	3	4	2	4	4	4	1	4	3	4
	Low-LH,LL,SWS,SRZ,SNA	4	3	4	3	4	4	4	2	4	4	4
RECREATION	High-HH,MM,LH,SWS,SRZ	1	1	1	1	3	3	2	2	1	1	3
	Moderate-HL,w/o roaded setting,MC	1	1	1	2	4	4	2	2	2	2	4
	Low-LL,HL with roaded setting	2	1	1	2	4	4	3	3	2	3	4
RANGE	High-MM, w/Range, HL w/Range	1	1	1	1	2	1	1	1	2	1	4
	Moderate-ML w/Range	2	2	2	2	3	1	1	1	2	1	4
	Low-HH,LL,SWS,SRZ, All w/Range	3	2	2	2	4	2	2	2	3	2	4
WILDLIFE	High-HH,MM w/o timber LH,SWS,SRZ	1	1	1	1	2	1	1	1	2	1	4
	Moderate-MM with timber	2	1	2	2	4	3	1	2	3	2	4
	Low-HL,ML,LL	3	2	3	3	4	4	2	3	3	3	4
WATERSHED	High-HH,MM,LH,SRZ	3	1	3	3	3	3	3	2	3	2	1
	Moderate-ML,HL,SWS,SNA	3	2	3	3	3	4	3	2	3	3	1
	Low-ML,LL	3	2	4	4	4	4	4	3	4	3	1
MINERALS	High-HH,MM,LH,LL,SWS, SRZ	2	3	3	2	3	4	3	4	2	2	3
	Moderate-NONE	3	3	4	3	3	4	3	4	3	3	4
	Low-HL,ML,SNA	4	4	4	4	4	4	4	4	4	4	4

Desirability Ratings: 1-HIGH 2-MODERATE 3-LOW 4-NOT DESIRABLE

Note: Prescription SWM, SCM, SNC, SXF, and SRN are not available for exchange

TABLE B-2

ACQUISITION PROJECTS

ROCKY MOUNTAINS							
EXCHANGE NO.	LOCATION	COUNTY	ACRES	REASON FOR ACQUISITION	INTRST TO BE AQCRD	METHOD	PRIORITY CLASS
1	T.30N., R13W HES. No. 724	Glacier	159	Wildlife values	Fee	Exchange	2
2	T.30N., R13W HES. No. 715	Glacier	160	Wildlife values	Fee	Exchange	2
3	T.30N., R12W HES. No. 704	Glacier	99	Wildlife values	Fee	Exchange	2
4	T.30N., R12W HES. No. 712	Glacier	102	Wildlife values	Fee	Exchange	2
5	T.30N., R12W HES. No. 705	Glacier	149	Wildlife, timber, & grazing values	Fee	Exchange	2
6	T.20N., R9W HES. No. 1112	Lewis & Clark	160	Timber & visual	Fee	Exchange	3
7	T.20N., R9W HES. No. 725	Lewis & Clark	160	Wildlife values	Fee	Exchange	2
8	T.20N., R9W HES. No. 717	Lewis & Clark	160	Wildlife values	Fee	Exchange	2
9	T.20N., R9W HES No. 714, 780, & Sec. 25 & 36	Lewis & Clark	556	Timber, grazing, wildlife values	Fee	Exchange	2
10	T18N., R8W Sec. 1	Lewis & Clark	160	Timber and visual	Fee	Exchange	3
11	T18N., R8W HES No. 1115	Lewis & Clark	160	Timber and visual	Fee	Exchange	3

HIGHWOOD MOUNTAINS							
EXCHANGE NO.	LOCATION	COUNTY	ACRES	REASON FOR ACQUISITION	INTRST TO BE AQCRD	METHOD	PRIORITY CLASS
1	T20N, R9E Lands in Sections 13 & 24	Chouteau	480	Consolidate Grazing Management	Fee	Exchange	High
2	Lands in Sections 14 & 15 T20N, R9E	Chouteau	160	Consolidate Grazing Management	Fee	Exchange	Moderate
3	Lands in Sections 19 & 20 T20N, R9E	Chouteau	240	Protect Recreational Values in Thain Cr. Area, Exchange Grazing Management	Fee	Exchange	Moderate
4	Lands in Sections 32 & 33 T20N, R9E and Section 4 T19N, R9E	Chouteau	360	Consolidate Recreation Management and Protect Recreation Values	Fee	Exchange	High
5	Lands in Section 4, T19N, R9E	Chouteau	320	Consolidate Recreation Management and Protect Recreation Values, Exchange Grazing Mgmt	Fee	Exchange	Moderate
6	Lands in Section 9, T19N, R9E	Chouteau	40	Consolidate Recreation Mgmt and Protect and Enhance Recreation Values, Timber and Grazing Management	Fee	Exchange	Moderate
7	Section 10, T19N, R9E Section 15	Chouteau & Judith Basin	120	Consolidate Recreation Management and Protect and Enhance Recreation Values; Timber and Grazing Management	Fee	Exchange	Moderate
8	Section 15, T19N, R9E	Chouteau	40	Protect Recreation Values; Exchange Timber, & Grazing Management	Fee	Exchange	Moderate
9	Sections 19 & 20 T20N, R10E	Chouteau	160	Consolidate Grazing Management	Fee	Exchange	High
10	Section 20 T20N, R10E	Chouteau	40	Consolidate Grazing Management	Fee	Exchange	High
11	Section 21 T20N, R10E	Chouteau	100	Consolidate Grazing Management	Fee	Exchange	High

TABLE B-2

ACQUISITION PROJECTS

BIG SNOWY MOUNTAINS							
EXCHANGE NO.	LOCATION	COUNTY	ACRES	REASON FOR ACQUISITION	INTRST TO BE AQCRD	METHOD	PRIORITY CLASS
1	T13N, R19E Section 28	Fergus	80	Semi-Primitive Recreation	Fee	Exchange	Low
2	T13N, R19E Section 28	Fergus	120	Semi-Primitive Recreation	Fee	Exchange	Low
3	T12N, R17E Section 4	Fergus	40	Semi-Primitive Recreation	Fee	Exchange	Low
4	T12N, R19E Section 1 & 12	Fergus	160	Semi-Primitive Recreation; Recreation Development	Fee	Exchange	High
5	T12N, R17E Sec. 34	Fergus	63	Timber & Grazing Management Enhancement	Fee	Exchange	Medium
6	T12N, R17E Sec. 34 & 35 T11N, R17E, Sec 2	Fergus	138	Timber & Grazing Management Enhancement	Fee	Exchange	Medium
7	T11N, R17E Sec. 2 & 12	Fergus	208	Timber & Grazing Management Enhancement	Fee	Exchange	Medium
8	T11N, R18E Sec. 7 & 8	Fergus	183	Timber & Grazing Management Enhancement	Fee	Exchange	Medium
9	T11N, R18E Sec. 15	Fergus	160	Timber & Grazing Management Enhancement	Fee	Exchange	Medium
10	T11N, R18E Sec. 13	Fergus	120	Timber & Grazing Management Enhancement	Fee	Exchange	Medium
11	T11N, R18E, Sec. 11, 12, 13, 14	Fergus	160	Timber & Grazing Management Enhancement	Fee	Exchange	Medium
12	T11N, R19E, Sec 16 & 17 Sec. 21 & 28	Golden Valley	400	Timber & Grazing; Management Enhancement	Fee	Exchange	Moderate & Low
13	T11N, R19E, Sec 26 & 27	Golden Valley	160	Timber & Grazing; Management Enhancement	Fee	Exchange	Low
14	T11N, R19E, Sec 27	Golden Valley	80	Timber & Grazing; Management Enhancement	Fee	Exchange	Low

LITTLE SNOWY MOUNTAINS							
EXCHANGE NO.	LOCATION	COUNTY	ACRES	REASON FOR ACQUISITION	INTRST TO BE AQCRD	METHOD	PRIORITY CLASS
1	Section 36 & Section 31 T12N, R20E T12N, R21E	Fergus	400	Timber, Grazing, & Wildlife; Management Enhancement	Fee	Exchange	Low
2	T12N, R21E Sections 23, 24, 25	Fergus	480	Timber, Grazing, & Wildlife; Management Enhancement	Fee	Exchange	Low
3	T12N, R21E Sections 22, 28, 35 T11N, R21E Section 2	Fergus and Golden Valley	600	Timber, Grazing, & Wildlife; Management Enhancement	Fee	Exchange	Low

TABLE B-2

ACQUISITION PROJECTS

LITTLE BELT MOUNTAINS							
EXCHANGE NO.	LOCATION	COUNTY	ACRES	REASON FOR ACQUISITION	PRIORITY TO BE ACHIEVED	METHOD	PRIORITY CLASS
1	T10N, R11E Section 8, 9, 16, & 17	Meagher	151	Timber and Grazing Management Enhancement	Fee	Exchange	Low
2	T11N, R7E Sections 5 & 6	Meagher	160	Timber and Grazing Management Enhancement	Fee	Exchange	Moderate
3	T11N, R7E Sections 10 & 11	Meagher	160	Timber and Grazing Management Enhancement	Fee	Exchange	Moderate
4	T11N, R10 & 11E Section 12/7	Judith Basin	160	Timber and Grazing Management Enhancement	Fee	Exchange	Moderate
5	T11 & 12N, R13E Sections 7 & 12	Judith Basin	465	Timber and Visual Management Enhancement	Fee	Exchange	Moderate
6	T11N, R13E Sections 25 and 36	Wheatland	160	Grazing and Wildlife Management Enhancement	Fee	Exchange	Moderate
7	T11N, R14E Section 15	Wheatland	80	Grazing and Wildlife Management Enhancement	Fee	Exchange	Moderate
8	T12N, R6E Sect. 1, 9, 11, 15, & 17	Meagher	3200	Grazing and Wildlife Management Enhancement	Fee	Exchange	Moderate
9	T12N, R6E Sections 12 & 13	Meagher	800	Grazing and Wildlife Management Enhancement	Fee	Exchange	Moderate
10	T12N, R6E Section 33 T12N, R5E Section 1	Meagher	1280	Grazing and Wildlife Management Enhancement	Fee	Exchange	Moderate
11	T12N, R6E Section 7 T12N, R5E Sections 11 & 13	Meagher	1920 640	Grazing and Wildlife Management Enhancement Grazing and Wildlife Management Enhancement	Fee	Exchange	Moderate
12	T12N, R6E Section 6	Meagher	160	Grazing and Wildlife Management Enhancement	Fee	Exchange	Moderate
13	T12N, R6E Section 19	Meagher	640	Grazing and Wildlife Management Enhancement	Fee	Exchange	Moderate
14	T13N, R9E Section 35	Judith Basin	40	Timber, Grazing, Management Enhancement	Fee	Exchange	High
15	T13N, R9E Sections 35 and 36 T13N, R10E Sections 31 and 32	Judith Basin Judith Basin	400 200	Timber, Grazing, Management Enhancement Timber, Grazing, Management Enhancement	Fee Fee	Exchange Exchange	High High
16	T13N, R10E Sections 32 and 33	Judith Basin	320	Timber, Grazing, Management Enhancement	Fee	Exchange	High
17	T13N, R10 & 11E Sections 1, 2, 3, 13, 17, 18, 19, 20	Judith Basin	173	Timber, Grazing, Recreation, Management Enhancement	Fee	Exchange	High
18	T13N, R5E Sections 4 and 5 T14N, R4E Sections 3, 9, 11, 13, 15, 17, 21, 22, 23, 25 T14N, R5E Sections 29, 31, 33 T15N, R4E Section 33	Meagher Meagher Meagher Meagher	1280 4400 1255 40	Timber, Grazing, Rec- reation, Management Enhancement Timber, Grazing, Rec- reation, Management Enhancement Timber, Grazing, Rec- reation, Management Enhancement Timber, Grazing, reation, Management Enhancement	Fee Fee Fee Fee	Exchange Exchange Exchange Exchange	Moderate Moderate Moderate Moderate
19	T14N, R4E Section 5 Section 7	Meagher	646 634	Approved Rec. Comp.	Fee Fee or Part	Exchange Exchange/ Purchase/ Scenic Easement	Moderate High
20	T15N, R3E Sec. 13 T14N, R3E Sec. 25 T14N, R4E Sec. 30	Meagher	520	Approved Rec. Comp.	Fee or Part	Exchange/ Purchase/ Scenic Easement	High
21	T14N., R35E., Sect 13	Meagher	360	Approved Rec. Comp.	Fee or Part	Exchange/ Purchase/ Scenic Easement	High

TABLE B-2

ACQUISITION PROJECTS

LITTLE BELT MOUNTAINS							
CHANGE NO.	LOCATION	COUNTY	ACRES	REASON FOR ACQUISITION	INSTR TO BE ACQD	METHOD	PRIORITY CLASS
22	T14N., R4E., Sec 24 & 25	Meagher	80	Management Enhancement	Fee	Exchange	Moderate
	T14N., R5E., Sec 13, 19, 20, 24, 28, 30, 32, and 33	Meagher	1359	Semi-Primitive Recreation	Fee	Exchange	Moderate
	T14N., R6E., Sec. 18 & 19	Meagher	63		Fee	Exchange	Moderate
23	T14N., R5E., Sec. 25 & 36 T14N., R6E., Sec. 30 & 31	Meagher	157	Timber and Grazing Management Enhancement	Fee	Exchange	Moderate
24	T14N., R7E Sec. 16, 17, 20, and 21	Cascade	263	Timber and Grazing Management Enhancement	Fee	Exchange	Moderate
25	T14N., R9E Sec. 13 & 24	Judith Basin		Recreational Development	Fee	Exchange	Moderate
26	T15N., R3E., Sec 24 & 25 T15N., R4E., Sec 31	Cascade	614	Approved Rec. Comp.	Fee or Part	Exchange/ Purchase/ Scenic Esmt	High
27	T15N., R4E., Sec. 7 & 18 T16N., R3E., Sec. 25 T16N., R4E., Sec. 30 & 31	Cascade	570	Approved Rec. Comp.	Fee or Part	Exchange/ Purchase/ Scenic Esmt	High
28	T15N., R4E., Sec. 18 & 19	Cascade	350	Approved Rec. Comp.	Fee or Part	Exchange/ Purchase/ Scenic Esmt	High
29	T15N., R4E., Sec. 30	Cascade	125	Approved Rec. Comp.	Fee or Part	Exchange/ Purchase/ Scenic Esmt	High
30	T16N., R4E Sec. 30 & 31	Cascade	240	Approved Rec. Comp.	Fee or Part	Exchange/ Purchase/ Scenic Esmt	High
31	T15N., R3E Sec. 36	Cascade	40	"	Fee or Part	Exchange/ Purchase/ Scenic Esmt	High
32	T14N., R3E Sec. 24 T14N., R4E Sec. 31	Meagher	20 200	"	Fee or Part	Exchange/ Purchase/ Scenic Esmt	High
33	T14N., R3E Sec. 24 & 25 T14N., R4E Sec. 30	Meagher	190	"	Fee or Part	Exchange/ Purchase/ Scenic Esmt	High
34	T14N., R3E Sec. 1 & 12 T14N., R4E Sec. 6	Meagher	170	"	Fee or Part	Exchange/ Purchase/ Scenic Esmt	High
35	T12N., R7E Section 7	Meagher	240	Timber and Visual Management Enhancement	Fee	Exchange/ Purchase/ Scenic Esmt	Moderate
36	T12N., R7E Section 7	Meagher	40	Timber and Visual Management Enhancement	Fee	Exchange/ Purchase/ Scenic Esmt	Moderate
37	T12N., R7E Section 7	Meagher	40	Timber and Visual Management Enhancement	Fee	Exchange/ Purchase/ Scenic Esmt	Moderate
38	T15N., R4E Sec. 15, 21, 22, 23, 26, 28	Cascade	869	Semi-Primitive Recreation; Management Enhancement	Fee	Exchange	Low
39	T15N., R9E Sec. 9, 10, 14	Judith Basin	320	Timber & Grazing, Management Enhancement	Fee	Exchange	Moderate
40	T15N., R9E Sec. 15	Judith Basin	160	Timber & Grazing, Management Enhancement	Fee	Exchange	Moderate
41	T15N., R9E Sec. 2 & 3	Judith Basin	308	Semi-Primitive Recreation; Management Enhancement	Fee	Exchange	Low
42	T15N., R10E Sec. 16 & 19	Judith Basin	308	Semi-Primitive Recreation; Management Enhancement	Fee	Exchange	Moderate
43	T15N., R10E Sec. 17, 18, & 19	Judith Basin	320	Semi-Primitive Recreation; Management Enhancement	Fee	Exchange	Moderate
44	T16N., R6E Sec. 25, 26, 35, 36	Cascade	420	Grazing Enhancement	Fee	Exchange	High
45	T16N., R7E Sec. 31	Cascade	322	Grazing & Semi-Primitive Recreation; Management Enhancement	Fee	Exchange	High
46	T16N., R7E Sec. 32	Cascade	160	Grazing & Semi-Primitive Recreation; Management Enhancement	Fee	Exchange	High
47	T16N., R8E Sec. 28 & 29	Judith Basin	167	Semi-Primitive Recreation; Management Enhancement	Fee	Exchange	Low
48	T16N., R9E Sec. 25, 34, 35	Judith Basin	467	Semi-Primitive Recreation; Management Enhancement	Fee	Exchange	Low
49	T16N., R9E Sec. 25 & 34	Judith Basin	200	Semi-Primitive Recreation; Management Enhancement	Fee	Exchange	Low

TABLE B-2

ACQUISITION PROJECTS

CRAZY MOUNTAINS								
EXCHANGE NO.	LOCATION	COUNTY	ACRES	REASON FOR ACQUISITION	INTRST TO BE AQCRD	METHOD	PRIORITY CLASS	
1	T6N. R9E, Sec 11 & 13	Meagher	1120	Timber and Grazing	Fee	Exchange	Low	
	T6N. R10E, Sec. 5, 7, 9, 15, 17, 19, 21, 23, 25, 27, and 35	Meagher	6040	Timber and Grazing	Fee	Exchange	Low	
	T6N. R11E, Sec 25, 27, 29, 31, 33, 35	Meagher	3200	Semi-Primitive Recreation	Fee	Exchange	Low	
	T6N. R12E, Sec 19 & 31		1920	Semi-Primitive Recreation	Fee	Exchange	Low	
	T5N. R10E, Sec 1, 3, & 11	Meagher	1400	Timber and Grazing	Fee	Exchange	Low	
	T5N. R11E, Sec 1, 3, 5, 11, 13, 23, 25	Meagher & Park	3200 820	Semi-Primitive Recreation	Fee	Exchange	Low	
2	T6N. R11E Sec 15, 19, 21, & 29	Meagher	2560	Semi-Primitive Recreation	Fee	Exchange	Low	
3	T6N. R11E Sec 13 and 23	Meagher	1920	Semi-Primitive Recreation	Fee	Exchange	Low	
	T6N. R12E Sec. 7	Wheatland						
4	T5N. R10E, Sec 13	Meagher & Park	320	Semi-Primitive Recreation	Fee	Exchange	Low	
	T5N. R12E, Sec 7 & 19	Sweetgrass	1280					
5	T6N. R12E Sec. 6	Wheatland	60	Semi-Primitive Recreation	Fee	Exchange	Low	
6	T6N. R12E Sec. 29	Wheatland	640	Semi-Primitive Recreation	Fee	Exchange	Low	
7	T7N. R9E Sec. 13,23	Meagher	203	Timber, Grazing, and Wildlife; Management Enhancement	Fee	Exchange	Moderate	
8	T7N. R9E Sec. 25	Meagher	640	Timber, Grazing, and Wildlife; Management Enhancement	Fee	Exchange	Moderate	
	T7N. R10E							
	Sec. 19 & 30							

CASTLE MOUNTAINS								
EXCHANGE NO.	LOCATION	COUNTY	ACRES	REASON FOR ACQUISITION	INTRST TO BE AQCRD	METHOD	PRIORITY CLASS	
1	T9N. R7E	Meagher	60	Municipal Watershed	Fee	Exchange	High	
2	T9N. R8E, Sec 13 & 24	Meagher	120	Timber, Grazing, and Wildlife; Management Enhancement	Fee	Exchange	Moderate	
	T8N. R8E, Sec 31 & 33	Meagher	1280		Fee	Exchange	Moderate	
	T8N. R9E, Sec 16,17,18, 19,20, and 21	Meagher	480		Fee	Exchange	Moderate	
	T7N. R8E, Sec 5	Meagher	640		Fee	Exchange	Moderate	
3	T9N. R9E, Sec. 4 & 5	Meagher	160	Timber, Grazing, & Wildlife; Management Enhancement	Fee	Exchange	Moderate	
4	T9N. R9E, Sec 15 & 16	Meagher	160	Timber, Grazing, & Wildlife; Management Enhancement	Fee	Exchange	Moderate	
5	T9N. R10E, Sec 4, 5, 28, & 29	Meagher	320	Timber, Grazing, and Wildlife; Management Enhancement	Fee	Exchange	High	

TABLE B-3

LANDS AVAILABLE FOR SELECTION Listed by Location, County

CASE AREA	LOCATION	COUNTY	ACRES	REASON FOR DISPOSAL	INTRST TO BE ACQD	METHOD
Belt Park	T15N. R7E Sec. 26,28,33,35	Cascade	335	Scattered-Isolated	Fee	Exchange
	T14N. R7E Sec. 3,4,10,15	Cascade	520	Scattered-Isolated	Fee	Exchange
Tenderfoot	T14N. R4E Sec. 34	Meagher	160	Scattered-Isolated	Fee	Exchange
Sheep Creek	T13N. R5E Sec. 12 & 24	Meagher	1160	Scattered-Isolated	Fee	Exchange
	T12N. R5E Sec. 24	Meagher	40	Scattered-Isolated	Fee	Exchange
	T12N. R6E Sec. 20,24,26, 27,28	Meagher	1242	Scattered-Isolated	Fee	Exchange
	T12N. R7E Sec. 20,22,26, 28,32	Meagher	520	Scattered-Isolated	Fee	Exchange
	T11N. R7E Sec. 4	Meagher	2.5	Scattered-Isolated	Fee	Exchange
Crazys	T6N. R10E Sec. 12	Meagher	280	Scattered-Isolated	Fee	Exchange
	T6N. R11E Sec. 18	Meagher	155	Scattered-Isolated	Fee	Exchange
	T5N. R12E Sec. 8, 20	Sweetgrass	970	Scattered-Isolated	Fee	Exchange
Highway 2	T30N. R13W Sec. 3,10, 15, & 16	Glacier	81			
	T31N. R13W Sec. 35	Glacier	38			

APPENDIX C

PROPOSED LEWIS & CLARK NATIONAL FOREST PLAN

RIGHT-OF-WAY ACQUISITION

Permanent right-of-way easements are acquired by the Forest Service as a means of providing long-term road or trail access to the National Forest. Access is needed by the general public in the pursuit of recreation and by the Forest Service for management and administration.

Where access needs are not long-term, temporary agreements can be made with private landowners.

In preparation of the Forest Plan, extensive analysis of transport systems was conducted in an effort to determine the most economical road network needed to support the preferred land management alternative. Using this preferred road system, right-of-way needs were identified by priority and are shown on the Geographic Unit Maps. In addition, these right-of-way needs are displayed in tabular format on Table 3 by mountain range.

The following factors were considered in prioritizing right-of-way needs as high (H), moderate (M), or low (L).

1. Support schedule commodity management activities.
2. Provide general public access to areas large in size and/or recreation potential.

A precise assessment of total right-of-way needs is not possible at this level of planning. For this reason, some identified rights-of-ways may not be needed, if subsequent project level planning reveals that private land could reasonably be avoided. Conversely, other rights-of-ways not now identified, may be required.

Rights-of-way easements are also needed for trails. Most existing Forest Service trails are located partially on private land without the benefit of recorded easements.

Although a detailed assessment of trail R.O.W. needs has not been made, the Forest's long term goal is to resolve all trail jurisdictional conflicts through the acquisition of easements, relocation of trails to federal land or other suitable means.

**TABLE C-1
PLANNED RIGHT-OF-WAY ACQUISITION**

ROCKY MOUNTAINS																	
PROJECT NAME	PROJECT NO.	LEGAL DESCRIPTION	COUNTY	NO. OF OWNERS	MILES	FUNCTIONAL CLASS				DISTRICT				PRIORITY			PURPOSE
						A	C	L	T	1	4	6	7	H	M	L	
Dupuyer Creek	9193	T27N. R9W Sec. 13,14,23 T27N. R8W Sec. 18	Teton	2	3 1/2	X				X				X			Recreational Access
Dearborn	206	T18N. R7W Sec. 31,32,33	Lewis & Clark	4	2 1/2					X	X						Recreational Access
Falls Creek	299	T18N. R7W Sec. 33	Lewis & Clark	1	1 1/2					X	X						Recreational Access

HIGHWOOD MOUNTAINS																	
PROJECT NAME	PROJECT NO.	LEGAL DESCRIPTION	COUNTY	NO. OF OWNERS	MILES	FUNCTIONAL CLASS				DISTRICT				PRIORITY			PURPOSE
						A	C	L	T	1	4	6	7	H	M	L	
Highwood Baldy	8830	T19N. R8E Sec. 13	Cascade	3	2.4			X			X			X		Electronic Site Access	
Highwood Cottonwood	8843	T20N. R10E Sec. 32,33, 34,35	Chouteau	2	2.2			X			X			X		Timber Access	

SNOWY MOUNTAINS																	
PROJECT NAME	PROJECT NO.	LEGAL DESCRIPTION	COUNTY	NO. OF OWNERS	MILES	FUNCTIONAL CLASS				DISTRICT				PRIORITY			PURPOSE
						A	C	L	T	1	4	6	7	H	M	L	
Halfmoon Canyon	252	T12N. R19E Sec. 1	Fergus	1	0.5			X			X			X		Recreational Access	
Careless Creek		T11N. R18E Sec. 23,24	Fergus	1	1.5			X			X			X		Timber Access	
Little Snowies West	271	T12N. R20E Sec. 26,25	Golden Valley	1	2.0	X					X			X		Timber Access	
Little Snowies	271	T11N. R20E Sec. 1,2, 3,10 T12N. R20E Sec. 36	Golden Valley	2	3.3	X					X			X		Timber Access	

**TABLE C-1
PLANNED RIGHT-OF-WAY ACQUISITION**

LITTLE BELT MOUNTAINS																
PROJECT NAME	PROJECT NO.	LEGAL DESCRIPTION	COUNTY	NO. OF OWNERS	MILES	FUNCTIONAL CLASS				DISTRICT			PRIORITY			PURPOSE
						A	C	L	T	1	4	6	7	H	M	
Antelope Canyon	260	T12N. R12E Sec. 14,23	Judith Basin	2	1.8	X					X				X	Recreational Access
Roberts Creek Roughlock	584	T12N. R14E Sec. 10,15, 22,27,28,29	Judith Basin	3	5.0	X					X				X	Recreational Access
Roberts Creek Roughlock	586	T11N. R14E Sec. 22,15	Wheatland	2	1.0	X					X			X		Timber Access
Charcoal Gulch	820	T11N. R7E Sec. 29	Meagher	1	0.4	X						X			X	Timber Access
Sawmill Creek	94040	T11N. R8E	Meagher	3	2.7	X						X			X	
McGee Coulee	3311	T15N. R8E Sec. 6	Cascade	1	0.2	X						X		X		Recreational Access
Sawmill Creek	3313	T15N. R8E Sec. 8	Cascade	1	0.2	X						X		X		Recreational Access
Bull Roaring Creek		T15N. R7E	Cascade	15	1.2	X						X			X	Timber Access
North Woodhurst	93051	T14N. R11E Sec. 3	Judith Basin	2	1.0	X						X			X	Timber Access
Yogo Creek	266	T13N. R10E & R11E Sec. 1,2,12	Judith Basin	1	3.0	X						X			X	Timber Access
Middle Fork Judith	437	T13N. R9E Sec. 35,36 T13N. R10E Sec. 31,32,33	Judith Basin	4	4.8	X		X		X					X	Timber Access
Placer Snow	281	T14N. R9E Sec. 1	Judith Basin	1	0.2	X						X			X	Timber Access
Upper Dry Wolf	9184	T14N. R9E Sec. 13	Judith Basin	1	1.0	X						X			X	Timber Access
Wolf Butte	93000	T16N. R10E Sec. 30,29	Judith Basin	2	1.4	X						X			X	Timber Access
Reed Hill	110	T17N. R11E Sec. 24,25,36	Judith Basin	2	2.0			X				X			X	Timber Access
Moose Coulee	6457	T17N. R11E Sec. 22,27	Judith Basin	1	0.6			X				X				X
Lonetree	262	T15N. R9E	Judith Basin	3	1.4	X						X			X	Timber Access
Dry Fork Belt Creek	253	T15N. R9E Sec. 14,15	Judith Basin	1	0.2	X						X				Timber Access
Big Spring		T15N. R10E Sec. 17,18	Judith Basin	1	0.5			X				X			X	Timber Access
Rafferty Creek		T14N. R7E Sec. 11	Cascade	1	0.2			X					X		X	Timber Access
Tillingham Cr.		T14N. R7E Sec. 5,6 T15N. R7E Sec. 32,28,21	Cascade	2	3.8			X					X		X	Timber Access
Williams Park	586	T13N. R5E Sec. 1,2,11 T13N. R6E Sec. 6,7	Meagher	1	2.5	X							X		X	Timber Access

**TABLE C-1
PLANNED RIGHT-OF-WAY ACQUISITION**

CRAZY MOUNTAINS																	
PROJECT NAME	PROJECT NO.	LEGAL DESCRIPTION	COUNTY	NO. OF OWNERS	MILES	FUNCTIONAL CLASS				DISTRICT				PRIORITY			PURPOSE
						A	C	L	T	1	4	6	7	H	M	L	
Cinnamon Creek		T6N. R12E Sec. 1,2,3, 4,5,6	Wheatland	2	6.9	X						X			X	Timber Access	
Big Elk	654	T6N. R12E Sec. 21,22, 13,12,14	Wheatland	3	2.6	X						X		X		Recreational Access	
Castle Creek	8923	T6N. R10E Sec. 13 T6N. R11E Sec. 19	Meagher	2	1.8	X						X		X		Timber Access	
Short Eagle		T6N. R10E Sec. 1	Meagher	1	0.5			X				X		X		Timber Access	
Comb Butte	396	T7N. R10E Sec. 6,7,8, 17,20 T8N. R10E Sec. 31	Meagher	2	4.3	X						X			X	Timber Access	
Bozeman Fork		T7N. R9E	Meagher	2	6.5	X						X			X	Timber Access	

CASTLE MOUNTAINS

PROJECT NAME	PROJECT NO.	LEGAL DESCRIPTION	COUNTY	NO. OF OWNERS	MILES	FUNCTIONAL CLASS				DISTRICT				PURPOSE
						A	C	L	T	1	4	6	7	
Warm Springs	3871	T7N. R7E Sec. 1,11,12, 14,15	Meagher	3	6.0	X						X	X	Timber Access
Castle Checkerboard	581	T9N. R9E Sec. 1,2,11, 14,10	Meagher	3	2.9	X						X	X	Timber Access
Eightmile	93740	T10N. R8E Sec. 23,24, 25,36	Meagher	3	3.2	X						X		X Timber Access
N.F. Whetstone	8905	T9N. R10E Sec. 21,23,29	Meagher	2	1.8	X						X	X	Timber Access

APPENDIX D

PROPOSED LEWIS & CLARK NATIONAL FOREST PLAN

**BOB MARSHALL, GREAT BEAR,
SCAPEGOAT WILDERNESS
MANAGEMENT DIRECTION**

**Prepared by:
Flathead, Helena,
Lewis & Clark and
Lolo National Forest**

**In Response to:
NFMA Regulations 219.12 (f)
Public Issues
Management Concerns
Forest Service Manual 2320**

BOB MARSHALL, GREAT BEAR, SCAPEGOAT WILDERNESSES
MANAGEMENT DIRECTION

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PREFACE

Early in the planning process, a decision was made to combine the management direction for the Bob Marshall, Great Bear, and Scapegoat Wildernesses into one document. Managers recognized this need because these areas have contiguous boundaries forming a massive wilderness complex. Wilderness visitors often travel across administrative boundaries (Wilderness, National Forest, and Ranger District) and are confused by differing policies and standards of operation, maintenance, and cleanup.

The situation analysis and management direction in this document have been developed by a team of wilderness managers and Forest planners from each of the involved Ranger Districts and Forest headquarters of the Flathead, Helena, Lewis and Clark, and Lolo National Forests. Provisions of the National Forest Management Act of 1976 require each Forest Plan to provide for the management of all National Forest System lands within the individual Forest's administrative boundary. This document covers management direction for situations that occur across National Forest boundaries within the three-wilderness complex. It also contains specific management direction for localized situations occurring in the Scapegoat Wilderness. Localized situations in the Bob Marshall and Great Bear Wildernesses will be addressed in the Forest Plans for the Lewis and Clark and Flathead National Forests. Once the Forest Plans are complete, all management direction for the three-wilderness complex will be pulled together into one document, and will be made available for public use.

The Flathead Wild and Scenic River, a component of the National Wild and Scenic River System, is located partly within the wilderness complex. The upper Middle Fork originates in the Bob Marshall Wilderness and flows through the Great Bear Wilderness. The South Fork flows out of the Bob Marshall Wilderness to form Hungry Horse Reservoir. Both segments within the wilderness are classified as "Wild Rivers."

Management of the Flathead Wild and Scenic River is directed by the Management Plan approved by the Flathead Forest Supervisor on August 19, 1980.

This document describes the existing management situation and then lists the specific management direction for it. The two specific requirements of the National Forest Management Act relating to wilderness are discussed first. Next, the management concerns recognized by the interdisciplinary team are covered, and finally the specific requirements of Forest Service Manual 2320.

Working papers relating to each area of concern were developed by members of the interdisciplinary team. These papers are part of the Planning Record pertaining to development of the Forest Plans and are available for review at the Supervisor's Offices of each of the four National Forests.

The accomplishment of many of the specific action items under the directional statements depends on the level of financing available for wilderness management and planning each fiscal year. Target dates were established using professional judgment in predicting when each action should be accomplished. A paper entitled "Process for Development of Wilderness Management Prescriptions and Guidelines and Standards" has been developed to guide decisions at varying financial levels. Standards have been developed for implementing the direction at the "full service level" and "reduced service level" of management. Wilderness managers will consult these standards for establishing priorities when developing annual and multiyear financial program budgets.

BOB MARSHALL, GREAT BEAR, SCAPEGOAT WILDERNESSES
MANAGEMENT DIRECTION RESPONSIVE TO NFMA 36 CFR 219.12(f),
PUBLIC ISSUES, MANAGEMENT CONCERNS, AND FSM 2320

I. 36 CFR 219.12(f)(1)

Provide for limiting and distributing visitor use of specific portions in accord with periodic estimates of the maximum levels of use that allow natural processes to operate fully and that do not impair the values for which wildernesses were created.

A. Situation

1. A unique situation presents itself in the Bob Marshall, Great Bear, and Scapegoat Wildernesses: the area has outstanding wilderness values and is readily accessible from the population centers of western Montana. Feature attractions in the Scapegoat lie close to the area's boundary; these attractions, as well as many in the Bob Marshall and Great Bear, have been publicized in national magazines, are indicated on maps, and have a place of emphasis in the limited amount of information on the Wildernesses available to the public. These features have become destination points. Trails to them and the sites themselves receive levels of use damaging to both the physical and social aspects of the wilderness resource. Current use patterns have evolved over a long period of time. The main trails represent the easiest and fastest ways to access destination points. Most major portals are on National Forest land; one needs to cross private land to reach other points of entry. At the present time, direction in the Bob Marshall Wilderness Plan, relative to party size and duration of stay limitations, applies in the Scapegoat and Great Bear. The current limits (35 head of stock; 15 persons; 14 days) are not enforced for private parties to the same degree that they are for outfitters.
2. Managers realize the relationships between numbers of users and their distribution per se, and transportation system/portal access management, outfitted use, types of use, and levels of use of each type. Carrying capacity studies provide information needed to systematically develop management strategies that allow use and enjoyment of the wilderness resource while protecting wilderness values.
3. The only private land within the wilderness complex is section 29, T. 17 N., R. 10 W., P.M.M., in the Scapegoat Wilderness. This land is owned by Burlington Northern Inc.

B. Direction

(Also refer to Direction for: Transportation Systems; Outfitter-Guide Operations.)

1. Specific guidelines, standards, and action plans will be developed for managing the wilderness complex based on carrying capacity studies. These studies establish some limit on the kinds and amounts of recreation use that can be tolerated as well as the need for various guidelines and standards. These limits of tolerance are established to maintain long-term opportunities for wilderness-dependent experiences. Carrying capacity studies are usually based on two components:
 - a. The ability of the biophysical environment to withstand recreation use, and
 - b. The amount and type of use that is consistent with some measure of quality in recreation experience.

The key to determining a carrying capacity for wilderness is the establishment of clear management objectives for specific areas within the wilderness. A description of the desired future conditions (objectives for managing an area) and standards used to monitor these conditions must be developed. (See Wilderness Management, USDA Pub. No. 1365, 1978, Chapter 9 - "Wilderness Carrying Capacity" for a more thorough treatment of this subject.)

The process of determining a carrying capacity for the wilderness complex will conform to the requirements of the National Environmental Policy Act of 1969 and the National Forest Management Act of 1976 (NFMA). Public participation is a key part of the decisionmaking process. Based on environmental analyses, an amendment or revision of the Forest Plan may be necessary in accordance with Section 219.11(f) of NFMA regulations.

Complete an action plan by December 31, 1982. Areas receiving the heaviest use and problem areas will be studied first.

The current limits on party size, head of livestock per party, and length of stay will remain in effect for the wilderness complex until the carrying capacity study is completed. Exceptions must be approved in writing by the local District Ranger.

2. Prior to completion of the carrying capacity study, the following direction pertinent to determining the need to limit or distribute visitor use will be followed:
 - a. Managers will concentrate on improving conditions at degraded campsites, since these constitute easily observed evidence of overuse. A "degraded campsite" is a relatively flat piece of ground sizeable enough to accommodate one to several tents, and having at least three of the following characteristics:
 - (1) 50 percent or more of the available ground cover reduced or removed in the immediate area

- (2) absence of seedlings and saplings
 - (3) tree roots exposed; tree boles defaced
 - (4) abundance of weedy species
 - (5) lack of fuelwood
 - (6) fire rings
 - (7) trails radiating from the site to latrine locations, and creeks
 - (8) well established trails to and from the campsite
- b. Consider the following methods of handling degraded campsites -- arranged in order from most to least desirable from a management standpoint:
- (1) Public information (public service media messages, portal notices, personal contact) geared to informing the public what to look for in a campsite and the characteristics of sites they want to avoid. Emphasize no-trace camping; deemphasize feature attractions of the wilderness.
 - (2) Physical site alteration. Make overused sites less appealing/less accessible. Remove fire rings and other evidence of man's presence.
 - (3) Post a site restoration message at portals and a sign at the overused site. Suggest alternative camping locations (by characteristic, not specific location) on the portal notice. Convey in a very positive way the need and rationale for the public to avoid degraded campsites.
 - (4) For specific sites, set limits on party size, length of stay, and equipment requirements (e.g., stoves rather than campfires). Requires that the public be informed of areas to which limitations and requirements apply; requires followup administration to check for compliance.
 - (5) Initiate a self-issuing permit system. Post a destination signup sheet at portals to help managers and wilderness visitors alike learn where other visitors intend to camp. This method must be accompanied by public information efforts to work effectively.
 - (6) Site specific closures involve informing the public, posting notices on portals and at administrative sites, and signing sites as closed to all camping until further notice. This method also requires administrative followup.
 - (7) A mandatory issued permit system requires users to check in at an administrative site and obtain a camping permit. Administra-

tive units need to coordinate and communicate numbers of persons permitted at specific problem sites. Administrative followup is required.

- c. The primary objective of wilderness managers will be to minimize the amount of regulation and control present in wilderness. In conjunction with this objective, managers and guards must work toward the preservation and restoration of the wilderness resource to a condition present at the time the area was designated as wilderness by Congress. (See FSM 2320.1 for a discussion and definition of wilderness and wilderness management objectives.) Managers should try indirect, voluntary methods as a first choice, monitor effects, and proceed to more direct enforcement strategies as needs dictate.
- d. During the annual coordination meeting, managers of the Scapegoat, Great Bear, and Bob Marshall Wildernesses will meet and set priorities for the use of wilderness rangers at overused areas and trailheads that are takeoff points to them. Managers will establish coordinated guidelines for the training of wilderness rangers and schedule training on a regular basis to ensure continuity of personnel adequately trained and current in state-of-the-art wilderness management techniques.
- e. As encountered, remove or obliterate improvised camp structures, tent poles, fire rings, and other camp location indicators.
- f. After obtaining base information needed to establish recreation carrying capacity and specific area objectives for the three-wilderness complex -- Scapegoat, Great Bear, and Bob Marshall Wildernesses -- managers will establish criteria for revising wilderness maps and other information brochures to support these objectives.
- g. The Lolo Forest Landownership Adjustment Program will establish the priority for acquiring the private land in the Scapegoat Wilderness.
- h. Prior to the 1981 season, Scapegoat, Great Bear, and Bob Marshall Wilderness managers will establish a situation reporting network to keep administrative units updated on use, site conditions, trail conditions, and other helpful information that would support indirect, voluntary methods of visitor management. These reports will be made weekly during June through November and biweekly or as needed for the rest of the year. Information will not be provided to mass media, but used to respond to specific inquiries.
- i. Managers may consider party size and duration of stay limits more restrictive than those currently in effect at sites where overuse is resulting in resource damage. Inform commercial outfitters and the public at least 30 days prior to implementing changes. Notices will convey clearly the intent and purpose of changes from the current limits.

- j. A public notice will be placed on the major portal bulletin boards requesting visitors' cooperation in refraining from disturbing archeological resources.

II. 36 CFR 219.12(f)(2)

Evaluate the extent to which wildfire, insect and disease control measures may be desirable for protection of either the wilderness or adjacent areas and provide for such measures when appropriate.

A. Wildfire

1. Situation

- a. The Scapegoat Wilderness proposal, prepared in 1971, and the Great Bear Wilderness proposal, prepared in 1978, stated that the role of fire in the ecological processes of the area would be studied. The current Bob Marshall Wilderness Management Plan, approved in 1972, states that long-range planning will determine areas in which fire will be allowed to play a more natural role for the purpose of wilderness.

National direction governing fire management in wilderness is contained in Chapter 2320 of the Forest Service Manual (FSM). Section 2324.2 of the FSM states the following policy:

"Fire, or its absence, has probably had a more profound effect on natural life systems than any other single factor or a combination of factors. Natural fire has been a part of the ecology of the wilderness since creation, and man's efforts to ban this agent may have resulted in significant ecological changes in the flora and fauna of some areas. Similarly, fire accidentally or purposefully induced in wilderness has interfered with the natural processes which are to dominate in areas set aside as wilderness. In keeping with this, fires resulting from man and his activities must be prevented and/or controlled at all times. Naturally occurring fires will be allowed to more fully play their natural role in the ecology of the area. When natural fires threaten life and/or property within the wilderness, or when unacceptable damage to life, resources, or property outside the wilderness is imminent, they shall be controlled as well (emphasis added)."

This policy is further clarified through a Regional supplement to this policy:

"The management direction (for wilderness) will be to let wildfire more nearly play its natural role; however, fire's desirable role must be determined before the existing fire control policy can be modified." (R-1 Supplement 35, FSM 2324.2, April 1970)

At the 1977 Wilderness Fire Management Coordination Meeting, representatives of the Flathead, Helena, Lewis and Clark, and Lolo National Forests agreed to complete a fire management plan for the Danaher-Dry Creek and Scapegoat Fire Management Units by December 30 1980. These units total about 400,000 acres and constitute the target area for Phase I of establishing wilderness fire management direction. Phase II will address the remainder of the Bob Marshall-Great Bear-Scapegoat Wilderness complex. The fire management area plan will establish standards and guidelines for fires that can be managed under prescription. Without an approved fire management prescription, all wildfires will be suppressed.

- b. Data collection and analysis have proceeded since 1977. Study teams defined landscape units equivalent in terms of fuels and fire potential and organized fire history, occurrence, weather, and behavior information by these units. Existing vegetative cover types and mapped fire patterns provided indications of expected fire behavior in different parts of the wildernesses. The dynamics of fuel loading and predictions of the effects of fire, or lack of fire, on vegetation types throughout the target area.
- c. Study teams have evaluated inventories of uses, essential threatened and endangered species habitat, potential soil and water impacts, and smoke sensitive areas relative to fire potential, and drafted prescriptions accordingly.
- d. A Fire Management Plan for the Scapegoat Wilderness/Danaher portion of the Bob Marshall Wilderness was approved in July, 1981. A Fire Management Plan for the remainder of the Bob Marshall/Great Bear is scheduled to be completed by 1985.

- 2. Direction. Refer to the Bob Marshall-Scapegoat Wilderness Fire Management Plan for specific direction.

B. Insects/Disease

1. Situation

- a. Currently, the majority of insect and disease activity in the wilderness is localized and poses no threat to wilderness resource values or to resource values outside the wilderness boundary. However, whitebark pine blister rust, an introduced disease, does occur in some magnitude. The mountain pine beetle, which attacks lodgepole and whitebark pine, is a growing concern being designated a wilderness, portions were sprayed in the 1950's and early 1960's in an attempt to combat whitebark pine blister rust. The effect of blister rust and the mountain pine beetle on whitebark pine seed production has caused concern for grizzly bear populations.

Whitebark pine seeds constitute an important late summer source of protein and fat for the bear. Dr. Charles Jonkel, head of the Border Grizzly Project, believes that a reduction in the seed supply could adversely affect the reproduction potential of the bear (through a general decrease in condition going into the winter).

- b. Other wildlife specialists indicate that the grizzly has many alternate food sources available and has shown ability to adapt. While a decrease in reproduction potential is possible, it is doubtful that the grizzly bear population will be in jeopardy should much of the whitebark pine be decimated. A species much more vulnerable to the loss of whitebark pine is the gray-crowned rosy finch. This bird has a narrow range and does not adapt well. It feeds heavily on whitebark pine seeds.
- c. All three of the species mentioned, grizzly bear, the gray-crowned rosy finch, and whitebark pine, have undoubtedly been subject to stresses before. Permitting a stress factor to operate on a population is nature's way of improving that population through natural selection. Strains of western white pine, resistant to blister rust, would not be known today except for the stress of the disease on the species' population. Wildernesses constitute some of the few remaining places where natural selection can operate.

2. Direction

- a. Managers will establish and maintain at least annual contact with personnel involved in the Border Grizzly Project and keep knowledgeable of grizzly bear population dynamics in the area.
- b. No control measures will be considered without a thorough evaluation of the situation as directed in FSM 2324.12, documented in an environmental assessment.
- c. If control of insects and disease is necessary, it shall be carried out by measures which have the least adverse impact on the wilderness resource. Procedures prescribed in FSM 2324.13 and 5240 will be followed.

III. MANAGEMENT CONCERNS

A. Continental Divide National Scenic Trail (CDNST)

Establish a procedure for handling inquiries about the CDNST within the Scapegoat, Great Bear, and Bob Marshall Wildernesses.

1. Situation

- a. As a result of a study report prepared by the Bureau of Outdoor Recreation (more recently, the Heritage Conservation and Recreation Service) in 1976, the Continental Divide National Scenic Trail (CDNST) was established through passage of P.L. 95-625, the National

- (3) provide for a CDNST under P.L. 95-625 which establishes this trail as a recreation resource in and of itself. There are no current CDNST route alternatives that allow full compliance with all of the above.

2. Direction

- a. A specific CDNST route will not be identified prior to approval of the comprehensive plan being prepared by the Forest Service and the Secretary of Agriculture's Advisory Council. As an interim procedure, managers will respond to individual inquiries on a case-by-case basis considering the special needs of the inquiring party. Routes suggested may vary on administrative units depending on method of travel, proposed length of stay, season of travel, and degree of challenge desired.
- b. Administrative units will designate one person per Forest responsible for handling inquiries concerning the CDNST. The responsible persons will maintain close communications with each other and with wilderness management personnel from their units to achieve consistency and to monitor CDNST inquiries.

B. Wildlife and Fish (FSM 2323.3)

1. Situation

- a. The wilderness provides habitat for a wide variety of wildlife and fish species native to the Rocky Mountains. Prior to inclusion in the National Wilderness Preservation System, habitat manipulations did occur to improve conditions for some species. In designated wildernesses, the Forest Service has the responsibility to maintain habitat in its natural state for all indigenous species. The Montana Department of Fish, Wildlife and Parks continues to establish and administer bag limits, seasons, and other regulations concerning consumptive use of the wildlife resource.
- b. Fishing and hunting in the wilderness have increased during the past few years. Fish population sampling shows declines in the more accessible lakes and streams. Stocking of some lakes is an established practice, but is not currently being done. There are no special catch limits imposed on any lakes or streams in the area.
- c. The grizzly bear inhabits the wilderness, and numerous sightings have been reported by recreationists in the alpine areas in summer. No recent accidents have been reported due to grizzly bear-human encounters, but camps have been disturbed. A hunter was killed by a grizzly bear in the Bob Marshall in the early 1950's.

2. Direction

- a. Managers will maintain close communications with wildlife biologists from the Montana Department of Fish, Wildlife and Parks engaged in population dynamics studies of hunted and trapped species. Where

appropriate, the results of any such studies will be used to determine population levels and dynamics of the hunted and trapped species. Managers will consult annually with personnel from the Montana Department of Fish, Wildlife and Parks relative to levels of harvest appropriate for maintaining native hunted and trapped species as part of the wilderness resource.

- b. Natural processes such as fire, wind, and insect and disease activity will be the only agents permitted to influence vegetation and its associated wildlife in the wilderness. No enclosure structures will be installed. No vegetation manipulation projects will be considered. Reintroduction of wildlife species will be made only after a thorough analysis has been made by the Montana Department of Fish, Wildlife and Parks and the Forest Service. The proposal must be based on a need to establish natural conditions. The species must be native to the planting area. An environmental assessment will be prepared on the proposal after consultation with interested individuals, groups, and agencies.
- c. Lakes and streams that have not been stocked previously will not be considered for stocking. Within one year of implementation of each Forest's Forest Plan, wilderness managers and personnel from the Montana Department of Fish, Wildlife and Parks will establish direction for the stocking of lakes and streams previously stocked. As a part of establishing this direction, each previously stocked lake and stream will be assessed for the following items: a) existing species distribution; b) physical and biological characteristics of the waters and appropriateness for stocking; c) species to be stocked; d) the stocking level; e) the methods of stocking; f) population sampling. Where fish stocking is recommended as a result of this assessment, it will be implemented in a manner that avoids unacceptable levels of impact to the wilderness resource and the wilderness visitor. Stocking, population sampling, and spawn collection techniques will be subject to compliance with wilderness regulations regarding equipment use and transport.
- d. Managers will consult annually with personnel from the Montana Department of Fish, Wildlife and Parks relative to levels of fish harvest appropriate for maintaining fish populations in stocked lakes, and explore alternatives to continued stocking of regularly overfished lakes (e.g., "catch and release" regulations).
- e. The grizzly bear will continue to be a part of the wilderness experience. The public will be kept informed of known grizzly problem areas, but use will not be restricted from these areas. Education of bear avoidance techniques will be emphasized. Annual contact will be established and maintained with Border Grizzly Project personnel to assure continued and up-to-date knowledge of grizzly bear population dynamics. Similar contact will be established with members of the Wolf Ecology Project. The appropriate forum for this contact is the annual wilderness management coordination meeting.

C. Cave Management

Protect and preserve caves within the Scapegoat Wilderness.

1. Situation. Because of their remote location and access difficulties, the caves are visited primarily by experienced spelunkers. High spring and summer water levels in the caves further restrict exploration, and necessitate the use of specialized equipment for exploration, such as rafts and wet suits. Resource impacts are visible in the vicinity of the limited campsites near the caves. Some directional markings have been scribed on the walls of the caves. This type of modification detracts from the caver's sense of discovery and is inappropriate in wilderness. Currently, the major use and exploration of the caves is by local caving clubs. Mapping and surveying of the caves has been done by some groups.
2. Direction
 - a. Caves will be managed as an element of the wilderness resource with the objective of allowing them to remain untrammelled without significant development or advertisement. Retain the opportunity for the public to experience cave discovery and challenge. Wilderness caves shall not be signed, nor will they be marked on maps or discussed in brochures.
 - b. The interior portions of caves in wilderness are subject to the same management guidelines that apply to all other portions of wilderness. Permanent reference markings within caves are not permitted. Flagging may be used if promptly removed after it has served its purpose. Permanent or semi-permanent installations and facilities are not permitted. All camping and exploration equipment will be packed out at the end of each trip unless excepted in writing by the District Ranger. Permanent caches (remaining onsite for one year) are not permitted.
 - c. The appropriate wilderness manager will establish contact with local caving clubs. Prior to any group's commencing exploration activity, a memorandum of understanding/volunteer agreement will be prepared addressing the items discussed above and the following: schedules; party sizes; campsites; length of stay; exploration methods; removal of equipment; campsite cleanup. Groups will be encouraged to avoid publicizing/ promoting cave locations and attractions.
 - d. Caving is considered a high risk activity. In keeping with wilderness management philosophy, no specific actions will be taken to reduce the hazards encountered in cave exploration.

D. Gabions

Determine the need for and disposition of gabions at the Dry Fork-Flathead Divide in the Scapegoat Wilderness.

1. Situation

- a. Native westslope cutthroat trout inhabit Danaher Creek, a tributary of the South Fork of the Flathead River. Cutthroat trout in the Dry Fork of the North Fork of the Blackfoot River have become hybridized with rainbow trout, an introduced species.
- b. During the 1960's, unusually high runoff caused the Dry Fork to cut through natural barriers and drain into Danaher Creek at the Dry Fork-Flathead Divide. Biologists from the Forest Service and the Montana Department of Fish, Wildlife and Parks (then the Department of Fish and Game) became concerned that rainbow-cutthroat hybrids would enter Danaher Creek and hybridize the native cutthroat population. To prevent this, the banks of the Dry Fork were stabilized with gabions (wire baskets filled with rock).
- c. The gabions are obvious, nonconforming structures in the wilderness. At the present time, there is some uncertainty about their need.

2. Direction. Within one year of implementing the Forest Plan, appropriate wilderness managers, Forest hydrologists, Forest fisheries biologists, and Montana Department of Fish, Wildlife and Parks personnel will evaluate the need to stabilize the channel of Dry Fork Creek to protect Danaher Creek's westslope cutthroat trout population for purposes of enhancing the wilderness resource. If stabilization is needed, an action plan will be prepared for stabilizing Dry Creek's banks using native materials. If the need for bank stabilization is not demonstrated, the gabions will be removed and Dry Fork will be free to fluctuate between the Blackfoot and Flathead drainages as dictated by natural forces and events.

E. Lake Management

1. Situation. Several lakes within the wilderness receive heavy fishing and lake-oriented camping use. Accessibility is the major factor contributing to use, but fish populations add an attractive feature. Indicators of heavy use include soil compaction, loss of ground cover, lack of fuel wood, fire rings, and established shoreline trails. Frequently during the summer, several intervisible camps are established near lakes. Other lakes in the wilderness receive little use due to their remoteness and/or limited fishery.
2. Direction
 - a. Minimize the evidence of man's activities around the lakes and return those showing signs of overuse to a more pristine condition.
 - b. Appropriate direction pertaining to limiting and distributing visitor use (see 219.23(f)(1)) applies to this management concern.
 - c. Managers and wilderness rangers will encourage visitors to practice minimum impact camping techniques. Efforts will include informing the public of State laws that prohibit contaminating lakes with fish entrails and other refuse.

- d. The use of chemical agents such as soaps, detergents, and bleaches, whether biodegradable or not, will not be permitted in lakes.
- e. As a general guideline, stock should not be tied, corraled, or picketed within 100 feet of a lake, nor should they be tied, corraled, or picketed overnight or for an extended period (over 2 hours) within 100 feet of a stream or spring.
- f. Annual consultation with the Montana Department of Fish, Wildlife and Parks will determine the appropriate level for maintaining fish populations and stocked lakes and explore alternatives to continued stocking of overfished lakes (e.g., catch and release regulations) and direction for stocking of previously stocked lakes.

F. Grazing (FSM 2323.2)

1. Situation

- a. The area that now comprises the Scapegoat, Great Bear, and Bob Marshall Wildernesses has a long history of grazing use. During the period 1900-1940, large sheep bands grazed the area. Evidence of this past use may still be found on a few areas where vegetation has not completely recovered on sensitive soils and sites. The Carmichael Cabin on the North Fork Blackfoot River was built and used by sheepherders from the old Carmichael Sheep Company. Cattle, sheep, and horses grazed most of the area now included in the Sun River Game Preserve. After creation of the preserve, livestock grazing was terminated. Some areas were disced and seeded with nonnative grasses. At the present time, remnants of nonnative species such as timothy can be seen, but native species are well established.
- b. The quantity of available forage varies from place to place within the wilderness, reflecting topographic, moisture, elevational, and physical site variables. Fire exclusion has permitted conifer encroachment on some areas.
- c. The bulk of available forage currently occurs in lake and stream riparian zones and in alpine meadows west of the Continental Divide. East of the divide, large meadows and parks provide large areas of suitable rangeland.
- d. Grazing use in the wilderness consists of: (1) domestic grazing on allotments authorized by a grazing permit (five active grazing allotments are included in the area), (2) pack and saddle stock used by outfitters and guides authorized by a special use permit, (3) administrative pack and saddle stock, and (4) pack and saddle stock used by recreationists.

Allotment management plans and outfitter operation management plans establish the level of use, stocking levels, and season of use for cattle, outfitter and guide, and administrative livestock operations. These plans also identify range improvements necessary to protect the range resource. Range improvements are sometimes seen as incompatible with wilderness management objectives.

Most forage is essentially unaffected by man. Many areas near popular campsites and along major streams and trails (especially in the higher elevational zones) have been grazed beyond acceptable limits. Bare ground occurs around hitch racks, tie trees, salt grounds, and along wrangle trails. Weeds have become established along heavily used trails and around stock holding areas. Species such as spotted knapweed, goatweed, thistle, and cheatgrass are introduced from hay, manufactured horse pellets, and manure, and other weed seeds are brought in attached to the coats of stock and wildlife. The weed infestation is considered to be light, capable of being controlled without the use of chemicals.

2. Direction

- a. The Conference Report to S. 2009 (H.R. 96-1126) in the section under "Grazing in National Forest Wilderness Areas" established guidelines and policy relative to domestic livestock grazing in wilderness. These guidelines and subsequent Forest Service manual directives govern livestock management in wilderness (see also FSM 2323.2, ID No. 19, November 21, 1980).

This direction includes:

- (1) Grazing in wilderness will be controlled under general regulations governing grazing. Any adjustments in the number of livestock permitted to graze in wilderness should be made as a result of land management plans or revision in grazing plans giving consideration to legal mandate, range conditions, and the protection of the range resource from deterioration.
- (2) The maintenance of supporting facilities existing in an area prior to wilderness classification is permissible.
- (3) The replacement or reconstruction of deteriorated facilities should not require the use of "natural materials."
- (4) The construction of new improvements or replacement of deteriorated facilities is permissible if in accordance with appropriate plans.

Range management guidelines in wilderness are based on FSM directives contained in Chapter 2323.21. Livestock management guidelines apply to the following basic categories:

Recreation Livestock - pack and saddle stock used by private parties.

Administrative Livestock - pack and saddle stock used by the Forest Service and cooperating agencies for the administration of the wilderness.

Outfitter and Guide Livestock - pack and saddle stock used and permitted by outfitters and guides in the Outfitter Operations Management Plan and through a special use permit (2700-22).

Domestic Livestock - livestock permitted to graze on National Forest lands through grazing permits (2200-10) utilization, and system of use are agreed to through an allotment management plan.

Scapegoat Wilderness managers will establish criteria for designating four types of pack and saddle stock grazing areas within the wilderness (below). The objective of this designation is to insure that forage utilization results in a generally moderately grazed appearance (FSM 2323.21--1; 8/79 R-1 Supp 66). The timetable for selection, designation, and mapping will be established according to each Forest's range administration priorities.

- (1) Areas open to grazing where the use of supplemental feed is encouraged but not required.
 - (2) Areas open to grazing in which a proportion of supplemental feed is required by season for overnight trips. Pack and saddle stock must be kept tied or in temporary corrals when held in these areas.
 - (3) Areas open to grazing by permit only. Each of these areas will have a determined limit on the number of stock, the length of grazing time permitted, and the percentage of supplemental feed required.
 - (4) Areas closed to grazing will require 100 percent supplemental feed. Pack and saddle stock must be corraled or tied when held in these areas.
- b. Once identified, managers will prepare a map displaying these areas and their corresponding requirements. Maps will be posted at each administrative office (Supervisor's Offices and Ranger Stations) and at appropriate portals and, where needed, on the site. Forest Supervisors will assure that the public is informed of grazing area designations at least 30 days in advance of their effective date. Enforcement will be the responsibility of the District Rangers.
 - c. Livestock grazing will be limited to areas capable and suitable for such use. The criteria for determining capability and suitability will be developed as part of an inventory of the forage resources in the wildernesses.
 - d. All major grazing areas within the wilderness (i.e., areas receiving recurrent use by pack and saddle stock) will be designated as transportation stock allotments. Managers will establish through the allotment management plan:
 - (1) spring and early summer grazing dates (based on range readiness checks);

- (2) determination of carrying capacity, condition, and trend;
- (3) monitoring of actual use levels.
- e. Areas within the wilderness not included in a livestock grazing allotment will be managed to insure that forage utilization in areas suitable for grazing does not exceed a moderately grazed appearance (FSM 2323--1; 8/79 R-1 Supp 66). A moderately grazed appearance results in the following conditions:
 - (1) The range has a protective blanket of old forage growth averaging about 2 inches high.
 - (2) The remaining forage cover has a mottled, patchy appearance from uneven grazing.
 - (3) The forage partly hides small ground objects, squirrel mounds, livestock trails, and small bare ground areas at a distance of 20 feet or more.
 - (4) Livestock have not grazed the forage out from under shrubs and around the edges of rock.
 - (5) Livestock have eaten the seed heads from the grasses they like best.
 - (6) Seeds may be found on the ground.

This patchy use of plant vegetation maintains satisfactory soil conditions and a good plant mixture, without evidence of deterioration in either. Growth of forage and total yields are satisfactory although not as great as under lighter grazing. This is an efficient degree of utilization that provides satisfactory livestock production without waste of herbage.

This level of utilization may be determined by a visual evaluation (comparing onsite conditions to the criteria listed above) or by measurement (weight, clipping, transects).

- f. Unauthorized permanent range structures will be dismantled and removed by September 30, 1985. Structures needed to control stock will be temporary and will be removed after the period of use unless specifically excepted in an allotment management plan, grazing area requirements, or outfitter operation plans (see Outfitters and Guides - FSM 2323.63).
- g. Managers will encourage horse and packstock users (including administrative, outfitter, and private parties) to plan for the fewest number of animals required for each trip. No more than 35 horses or mules will be permitted per party. Lower limits will be considered where warranted and considered necessary to protect the wilderness resource. As a guide, encourage the use of one pack animal for each two persons in a party. It is recognized that stock users may need two pack animals plus one riding animal per person during hunting season.

- h. Salt will be kept in leak-proof containers. Salt will be packed out of the wilderness at the end of each trip, or at the end of the permitted use period.
- i. Managers will inform persons using stock in the wilderness of the weed problem. When supplemental feed is required, encourage the use of weed-free hay and pellets. Wilderness manager-public contacts should emphasize the relationship between overused, disturbed sites and weed establishment. Before a decision is made to control noxious weeds, an Environmental Assessment Report must be prepared discussing the need for control and the method to be used. Stock users will be encouraged to use weed-free hay, but certification will not be mandatory.

G. Transportation System and Signing (FSM 2323.11c; 2323.12a; 2323.61d; 2323.61g)

1. Situation

- a. The wilderness transportation system includes trail and bridge location and design, maintenance standards, portal management, and signing criteria and standards. Wilderness transportation system planning and management provide effective tools for dispersing use in wilderness toward the goals of protecting the resource and providing users opportunities for a quality wilderness experience. A trail transportation plan was prepared for the Bob Marshall in 1976. No plans have been finalized for the Scapegoat or Great Bear.
- b. The trail system in the complex preceded designation of the area as a wilderness. Trails are "destination" rather than "experience" oriented. At the present time, the wilderness complex does not have a coordinated trail management program. Each of the three Forests with administrative responsibilities in the wilderness has dealt with portions of its trails on a "resource need" basis as manpower and funding permitted. Trails exhibit a range of maintenance standards. Administering Forests have not generally explored opportunities to use trail maintenance as a management tool. In some parts of the wilderness, trail location, maintenance, and use factors contribute to accelerating erosion, concentrating use rather than dispersing it, and increasing use conflicts.
- c. There has been no uniform application of direction in FSM 2320 and the Trail and Sign Handbook concerning numbers, locations, and types of signs in the wilderness. Portions of the wilderness currently have more signs than are needed or are permitted by the Regional signing policy. Other areas lack enough signs to adequately distribute visitors and to reduce the impacts resulting from concentrated use. Signs differ as to type and kinds of materials used. Managers agree that some variation in the amount, type, and location of signs is desirable but concur that there should be some basis for the variation (e.g., trail standard and amount of use).

- d. The wilderness' outer boundary is not marked to standard. In order to enforce wilderness regulations, administering units must make a reasonable effort to make external boundaries where motor vehicle/motorized equipment trespass is likely or possible. Internal boundary signing poses a concern to managers of the Scapegoat, Great Bear, and Bob Marshall Wildernesses. The three wildernesses are contiguous, and combined cover lands administered by four National Forests (Helena, Lewis and Clark, Flathead, and Lolo). Currently, signs occur at some internal wilderness and Forest boundaries. While recognizing the need for administrative signing, managers realize that internal boundary signing in this situation calls unnecessary attention to manmade "lines" in an environment essentially free from man's influence.
 - e. Variation that exists in trails and signing also applies to portals (Wilderness Registration Stations). Little consistency appears between a portal and the type, standard, principal uses (e.g., hiking or riding), or levels of use of the trails associated with it. Approaches to the use of the portal as a management tool differ. Some provide information only; others provide various facilities. Registration boxes at portals are variously equipped and maintained. User registration provides an important monitoring network to determine levels and types of use. The types of information, facilities, and services available at portals can contribute to visitor education and effectively increase visitor awareness of the wilderness resource and its use in ways that allow its continuance without formal direct restrictions. Coordinated portal management provides a means to systematically obtain some of the information base needed for transportation system and visitor use management.
2. Direction. The following statements constitute direction proposed for implementing a transportation system and signing management program in the wilderness. The Bob Marshall Wilderness Trail Transportation Plan will serve as a basis for this direction.
- a. Prior to April 1983, managers of the Scapegoat, Great Bear, and Bob Marshall Wilderness will identify at least three levels of trails or segments of trails based on historic use and experience opportunity. The minimum levels identified include mainline, secondary, and primitive route. Identify trail problems, constraints, and needs. Set priorities for accomplishing needed work.
 - b. Managers will agree to appropriate maintenance schedules and standard for trails or segments of trails that cross administrative boundaries at the annual coordination meeting. All administrative segments of such trails will be maintained to the appropriate standard during the same season. Since decisions concerning trail standards are tentative pending completion of a carrying capacity study, managers will be cautious in recommending a higher-than-current standard for any trail unless they consider a higher standard necessary to protect the wilderness resource, and so document their decision.

- c. Trails must be constructed and maintained so they appear to be a part of the land rather than an intrusion upon it.

Trail routes shall be selected to provide scenic vistas and, where possible, a varied scene. Heavily used areas should generally be served by secondary or primitive trails and should be bypassed by mainline trails.

Trails should follow the natural contours of the land to the extent feasible, and result in minimum disturbance to soil and ground cover. (See also FSM 2323.11c and FSH 7709.12 - Trails Handbook.)

There will be some large areas in wilderness that will remain trailless.

Within one year of implementation, managers will assess all portals (Wilderness Registration Stations) and identify them as either primary or secondary (to correlate with trail classification). Based on the allocation of lands outside the Scapegoat Wilderness and proposed uses of those lands, managers will make recommendations to appropriate officials concerning the need for new portals and/or closure of existing portals. Recommendations will be based on the need to protect the wilderness resource and will be accomplished approximately one year after implementation of each Forest Plan.

- d. Managers will design and establish maintenance criteria for all portals identified or newly constructed, and maintain them to current standards. As a minimum, secondary portals will have registration boxes supplies as indicated in FSM 2323.12a--2 and a bulletin board featuring a map of the area, information on garbage and human waste disposal, visitor behavior, and information on minimum impact use of the wilderness resource.

Primary portals will have the above plus other facilities and services commensurate with use and deemed necessary to serve the public, preserve and protect the wilderness resource (e.g., stock holding and loading facilities, toilets, parking areas, litter bags, garbage disposal containers, and visitor message boards).

- e. Managers will initiate a monitoring system to systematically keep track of work accomplishments. At least once each month, a report will be prepared documenting the progress of trail maintenance, bridge repair, site rehabilitation, range analysis, camp management planning, cleanup, and law enforcement problems. The report will be used by managers to coordinate work and respond to public inquiries.
- f. Sign standards, mounts, and materials will be in accordance with standard R-1 specifications for Wilderness (FSM 2323.1(g)). Nonconforming signs will be phased out by attrition.

Signs will be used only when maps and route descriptions cannot adequately serve the wilderness users.

The following signs will be permitted: wilderness boundary signs, directional signs at trail junctions, and administrative signs. Trail signs will only contain the trail name and number. Destinations will not be included on trail signs within wilderness (see also FSM 2323.61g; FSM 7160 and FSH 7109.1, Sec. 52.8'; and FSM 2321.8).

- g. Managers will inform the public of any interim agreements that affect access to the wilderness and the availability of facilities and services at least 30 days prior to implementing those agreements. Notices will convey clearing the intent and purpose for changes from the current situation.

H. Cultural and Historic Resources (2323.8)

1. Situation. At the present time, most confirmed and potential historic sites in the wilderness have not been surveyed. Managers recognize the need to assess this part of the wilderness resource, and establish criteria to guide decisions on protection/preservation.

Cultural resources are protected by provisions of the American Antiquities Act, Uniform Rules and Regulations, Historic Sites Act, and Executive Order 11593 (see FSM 2360).

Cultural and historic resources will be considered a unique and nonrenewable part of the wilderness resource. Above-ground evidence of sites or structures will be subject to natural processes in the same manner as other wilderness resources.

No maintenance, rehabilitation, restoration, or interpretation will be provided.

Scientific study of these resources is permissible within the intent and concept of wilderness. Study or management will not normally include any excavation, restoration perpetuation, or interpretation activities (see also FSM 2324.8).

2. Direction

- a. Complete a cultural resource assessment on the evidences of man's activities and structures in the wilderness.

I. Outfitter and Guide Operations (2323.11d, 2323.63)

1. Situation. In response to concerns on outfitter and guide management, the Regional Forester appointed a task force to make recommendations on common problems throughout the Northern Region. Based on these recommendations, the Regional Forester issued Regional direction to deal

with them (December 24, 1980). This direction will govern outfitter and guide operations throughout the Northern Region. Four areas of concern common to the Scapegoat, Bob Marshall, and Great Bear Wildernesses with respect to outfitter operations warrant further discussion. They are:

- a. Outfitter Administration. Four basic problems with outfitter administration persist. They include size of operations, permit administration, camp standards, permit compliance.
 - (1) Size of Operations - The size of outfitter operations grows without a tie to visitor carrying capacity, number of suitable campsites, and forage resources. Some permits originally issued for fall hunting currently are used throughout the snow-free season. Outfitters renew permits yearly. At the present time, managers lack data on public needs and demands for commercial services and the resources' carrying capacities to sustain these uses. Managers recognize the need for commercial services in the three contiguous wildernesses, but want the supply of services to be responsive to a broad spectrum of uses, and to be available where the needs and demands lie. Wilderness management should provide a balance of opportunities for publics who want and do not want the services of an outfitter.
 - (2) Permit Administration - Lack of uniform interpretation of manual direction and permit administration across administrative units cause confusion and frustration among outfitters. Administrative units allow varying types of improvements and facilities without visible reasons for the variability. Insurance requirements, application dates, reporting forms, and terminology vary on different administrative units. Many outfitters operate on two wildernesses, occasionally three. Managers recognize a need to standardize these administrative procedures.
 - (3) Camp Standards - The outfitter operation management plan standards outlined in the Forest Service Manual have been interpreted differently by unit managers. A very conservative interpretation leads to the standards being regarded as unrealistic considering what is needed to provide services in a wilderness environment. A liberal interpretation causes those wilderness users who do not use the services of an outfitter to voice concern over camps and their associated improvements and facilities. Managers recognize the need for uniform camp management standards throughout the wilderness complex, but also recognize that local administrators need some flexibility to deal with day-to-day problems.
 - (4) Permit Compliance - Field inspections for compliance with the terms of a permit are infrequent, due primarily to the expansiveness of the area and other management priorities. Managers recognize the importance of field contacts with permittees on a regular basis. There have been problems on occasion with

some of the terms of permits, especially regarding "spike camps." At the present time, in some cases "spike camp" refers to a second base of operations during most of the permitted period. The temporary, short duration of use and requirements to dismantle are considered by some permittees as unduly restrictive and unreasonable.

- b. Stock Use and Forage Management. The second area of concern centers around stock use and forage management. Most outfitters are permitted grazing of transportation animals in conjunction with their outfitter and guide permit. Managers do not have current range data to support visual assessments of the forage component of the wilderness resource on which to base use levels (allocations) for wildlife, saddle, and packstock. Outfitters' stock, as well as that of general recreationists and that needed for administrative operations, compete for existing forage convenient to camps. At present, no system exists that managers feel equitably allocates forage. A sustained range forage condition, trend, production analysis program is needed to initiate management of forage for outfitter, recreational, and administrative livestock, and ensure adequate forage for wildlife and aesthetics.
- c. "Blue Sky Value" of Permits. Outfitter and guide permits are nonsalable privileges to use suitable National Forest lands. The permits, although temporary in nature, are viewed by permittees as an entity that is enhanced by the operator's integrity, business success and capability, equipment and stock and which, in its total sense, garners a value. It has been a practice to transfer permits to the purchaser of the outfitter's equipment and business. In effect, the location of the permits in the three-wilderness complex, combined with few additional permits being issued, has resulted in exceptionally high values for the sale of basic equipment, tack, and livestock. Inflated values have eliminated many capable prospective outfitters from purchasing a business, and likewise forces those able to buy to increase their volume of business to meet costs. Unlimited growth in volume of business is not consistent with wilderness values nor with wilderness carrying capacities.
- d. Unlicensed - Nonpermitted Outfitter Operations. The volume of business conducted by outfitters without special use permits is significant. Estimates by Region One's Cooperative Task Force on Illegal Outfitting indicate that these operations nearly equal permitted operations. Several conditions prohibit developing strong cases for prosecution of violators. The cases are difficult to prepare, time consuming, expensive, and are often unsuccessful. Magistrates and State court officials consider the offenses minor; penalties are light and provide no deterrent to illegal operations. As a result of some decisions, those who conduct legal operations rightly feel skeptical about the management of permitted uses. Illegal operations compound problems of demands on and allocations and uses of forage and suitable campsites within the wilderness.

2. Direction

- a. Refer to the first directional statement for 219.12(f)(1). Prior to completion of the carrying capacity study, managers will establish an effective visitor education program, emphasizing visitor contacts at portals and within the wilderness (see also Transportation System and Signing). The goals of this program will include:
 - (1) Contacting user groups before they enter the wilderness (through organizations, media messages, etc.), emphasizing proper use of the wilderness resource.
 - (2) Identifying heavily used areas and popular use patterns and developing techniques to effectively disperse visitors away from these areas.
 - (3) Ensuring that employees involved in visitor contact understand the "Good Host" concept and are fully cognizant of wilderness values and management practices.
 - (4) Providing more comprehensive visitor information at portals, Ranger Stations, and Supervisor's Offices.
- b. While the above direction does not pertain specifically to outfitter operations, the flow of information established as a result of its implementation is needed to resolve not only this concern, but many other aspects of wilderness management.
 - (1) Prior to completing the carrying capacity study or allocation decision through environmental assessment, no additional outfitter and guide permits will be issued nor will approval be granted to expand operations beyond current use levels authorized in 1978-1980 special use permits.
 - (2) A decision establishing an outfitter/guide allocation will examine, through environmental assessment, the need for:
 - (a) public outfitting services;
 - (b) existing operations to determine how they meet identified needs;
 - (c) existing operations to determine how they meet overall wilderness management objectives.

The assessment should be completed by December 31, 1983.

- (3) After collection of user information and resource data, managers will implement the following procedure when an outfitter/guide vacancy occurs due to the termination of a permit or sale of real property:
 - (a) reevaluate the public need for continued outfitter services;

- (b) if a need is demonstrated, determine whether an existing outfitter should be allowed to provide the necessary services; or
 - (c) select a new outfitter based on the applicant's qualifications, ability to meet a specifically identified public service need, and protection of the wilderness resource values.
- (4) Increase on-the-ground administration and management of outfitter/guide permits.
- (5) Encourage outfitters and guides to develop and use minimum impact use techniques, and to educate their clientele to these techniques. Emphasize the role of these techniques and their use in protecting the wilderness resource and the continued recognition of outfitter operations as a means for many publics to enjoy this resource.
- (6) Prior to the 1982 use season, managers will develop uniform camp standards for outfitter operations based on the Regional Forester's policy resulting from the 1980 R-1 National Forest Outfitters and Guides Task Force recommendations. The standards should delineate acceptable developments and the extent of development, including:
 - (a) camp locations relative to trails, streams, lakes, and features;
 - (b) permanent and temporary improvements authorized;
 - (c) camp layout.
- (7) The Outfitter Operation Management Plan will be the basis for determining conduct of outfitter and guide activities within the wilderness.
- (8) Intensify efforts to eliminate or reduce unlicensed or unauthorized outfitter and guide use.
- (9) The use of spike camps will be evaluated during development or review of outfitter management plans. Spike camps which are not being utilized appropriately will be either reclassified accordingly, or use changed to abide by the terms of the permit.

J. Administrative Facilities (administrative sites, lookouts, and fences: FSM 2323.61a, 2323.61b, 2323.61c)

1. Situation

- a. Several administrative cabins, lookouts, and other structures and facilities exist in the wilderness. Big Prairie, Gate Park, and Schaffer Meadows serve as work centers. All structures and facilities were established prior to the designation of the area as

wilderness, and are currently used for storing supplies and equipment for recurrent administrative work, and provide bases of operations for gathering wilderness, resource, and use information.

- b. Cabins and administrative sites in particular have a way of becoming "destination points" for wilderness users. Areas in their vicinity show signs of overuse from campers and stock. Signs meant to discourage camping near them have not been effective.

2. Direction

- a. All administrative structures and facilities will be retained for wilderness administrative purposes during this planning period. When major rehabilitation or maintenance is required, an assessment will be completed prior to expenditure of funds. This assessment will evaluate: (1) the need for administrative purposes, and (2) historical significance of the structure. (See also FSM 2323.61a, b, and c.)
- b. Cultural assessments of facilities will be required before decisions concerning their future status are made.
- c. No new facilities or reconstruction of existing facilities (administrative sites, lookouts, fences) will be considered during this planning period.

K. Administrative Coordination

Establish procedures for achieving more administrative coordination and management consistency for the Scapegoat, Great Bear, and Bob Marshall Wildernesses.

- 1. Situation. While the Scapegoat, Great Bear, and Bob Marshall Wildernesses each have unique characteristics, because they are contiguous elements of the National Wilderness Preservation System, managers recognize the need for management consistency to the degree that uniform management philosophy is evident. At the present time, managers meet annually to discuss topics of common concern. There is no approved management plan for either the Scapegoat or the Great Bear Wilderness; interim direction to a large degree is based on the management plan for the Bob Marshall, but is not formally documented. Administrative units place different levels of priority on wilderness management. In the past, different management priorities effected varying levels of funding considered necessary for a management program, which compounded coordination problems in the areas of general administration and training of seasonal employees.
- 2. Direction. To achieve coordinated and consistent management of the Scapegoat, Great Bear, and Bob Marshall Wildernesses, establish a management coordination team composed of District Rangers from each administrative unit. The team will serve as a coordinating body, making recommendations to appropriate Forest Supervisors concerning program budget proposals, standards and guidelines, and the implementation and monitoring of management direction. The team will, as a minimum, meet annually.

Other items to be accomplished through the annual meeting include:

- a. Establish coordinated guidelines for training and training schedules for seasonal employees and wilderness management personnel.
- b. Review and set priorities for the use of wilderness rangers/guards at overused areas and primary trailheads accessing these areas.
- c. Review data and information prepared by the Border Grizzly Project and the Wolf Ecology Project.
- d. Review coordination agreements with the Montana Department of Fish, Wildlife, and Parks regarding fish and game harvest limits.
- e. Review trail maintenance schedules.
- f. Review outfitter and guide itineraries.

L. Oil and Gas Leases

1. Situation. As of May 1, 1981, the Forest Service had received several hundred applications for oil and gas leases for the wilderness complex.

On May 21, 1981, the House Committee on Interior and Insular Affairs invoked section 204(e) of the Federal Land Policy and Management Act (1976) and withdrew the entire Bob Marshall-Great Bear-Scapegoat Wilderness complex from oil and gas leasing. This emergency withdrawal of 3 years would extend beyond the January 1, 1984, date at which time all mineral entry and leasing in any wilderness area will cease as per the requirements of the Wilderness Act of 1964.

The Mountain States Legal Foundation filed an appeal to the Congressional Committee's action in Federal District Court. The District Court returned the withdrawal to the Secretary of Interior. The withdrawal was revoked on January 29, 1982. Congress is considering several legislative proposals dealing with minerals and oil and gas leasing in wilderness and oil and gas leasing in the Bob Marshall complex.

2. Direction. Oil and gas leasing will be considered in a separate environmental analysis which will deal with the whole wilderness complex.

M. Lands Management

1. Situation. Land Acquisition - all lands within the three-wilderness complex are National Forest System lands with the exception of 640 acres on Burlington Northern Inc. land (section 29, T.17N., R.10W., P.M.M.) located in the North Fork of the Blackfoot River in the Scapegoat Wilderness on the Lolo National Forest. The North Fork Administrative Cabin and portions of Trails No. 31, 32, and 436 are located on

this land. The Lolo Forest currently pays a land use fee to Burlington Northern Inc. for administrative use of the area.

2. Direction. Land Acquisition - private lands within wilderness will be acquired through the Forest land adjustment program. The section of land owned by Burlington Northern Inc. is scheduled for acquisition by exchange in F.Y. 84. (Refer to Appendix I, Guidelines for Landownership Adjustment and Proposed Program.)

IV. FSM 2320 REFERENCE ITEMS

Current FSM 2320 direction requires that wilderness management plans address the following items. None of these items surfaced as management concerns in the Forest planning process. Direction stated generally reflects intent to continue current management emphasis, or intent to comply with Regional wilderness management philosophy.

A. 2323.11a Public Camps

The only designated public campsite within the wilderness is at Schaffer Meadows. Additional sites will not be designated. Improvised camp structures will be dismantled and obliterated when found. Permanent hitchracks will be installed only when needed to correct a continuing resource problem. Shelters will not be provided; improvised shelters will be obliterated when found. Garbage pits will not be provided. Inform visitors of their responsibility to pack out all unburnable debris.

B. 2323.11e Contests

Contests, such as physical or mental endurance of a man or animal; foot races; canoe or boat races; competitive trail rides; survival contests or exercises (including military); and other activities of this nature will not be permitted in the wilderness.

C. 2323.42 Water Improvements

There are no dams under special use permits or other authority in the wilderness. Hungry Horse Dam on the South Fork of the Flathead, Gibson Dam on the Sun River, and Swift Reservoir on Birch Creek are located outside the wilderness. These dams affect the natural fisheries of the wilderness.

Two potential powersites, Schaffer Meadows and Granite-Dryad, have been identified by the Geological Survey. The Bureau of Reclamation information reports describe the Spruce Park Dam project. These three sites are on the Middle Fork of the Flathead River. The Middle Fork is classified as a Wild and Scenic River, thereby precluding any water development. Flood control dams have been proposed outside the wilderness by the Bureau of Reclamation at Sun Butte and Castle Reef, both east of the Continental Divide. Either of these dams, if constructed, would back water into the wilderness.

D. 2323.43a Snow Measurement

Snow courses will continue to be measured by the Forest Service provided that this activity is funded by the benefiting agency, or that appropriate Forest Supervisors identify funding needed to accomplish this activity. Primitive means of travel will be used unless the Regional Forester approves motorized use for special situations.

E. 2323.44 Weather Modification Over Wilderness

At the present time, no lands within the wilderness are proposed for use as target areas for weather modification activities. In the event that proposals occur prior to the revision of the Forest Plan, managers will follow the direction and procedures established in FSM 2323.44.

F. 2323.52b Fuelwood

Only dead and down material may be used for fuelwood. In portions of the Scapegoat Wilderness receiving heavy use (as identified in direction for 219.12(f)(1)), managers will encourage, or may require, the use of campstoves.

G. 2323.6 Structures and Improvements

Four structures used for communications were erected in the Great Bear before wilderness classification. Passive repeaters are located on Ousel Peak, Mt. Furlong, and west of Kootenai Creek. These three electronic installations are under easement to the Mountain States Telephone Company. All three are serviced by helicopter on an as-needed basis, about once every 5 years. Burlington Northern Inc. has a special use permit for a radio-repeater site (propane generator) on Mt. Furlong. This installation is serviced by helicopter about twice a year on a regular basis and additional times when problems arise. Easements, such as the electronic sites, are a legal right in the land for a specific purpose. Special use permits, such as the radio-repeater site, will be retained if, in the opinion of the Regional Forester, its continued use is in the public's interest.

H. 2323.61e Airfields

There are several airfields within the wilderness. In the Great Bear Wilderness, public use of the Schaffer Airfield will continue to be permitted subject to safety regulations which may be imposed by responsible agencies. Use levels will be maintained to protect wilderness values and no significant improvement will be made (House Committee Report on Great Bear Wilderness). No other airfields in the wilderness are open to public use except in emergencies involving health and safety of human beings within the area.

I. 2323.61f Heliports

There are no heliports in the wilderness and none are proposed. Prior to designation of the area as wilderness, helispots were "constructed" principally by removing a few trees to provide or enlarge an opening. The area has numerous flat, open spaces that may serve as helispots. Maintenance has been done on constructed helispots since the area was designated a

wilderness. Maintenance will be allowed on those helispots already in existence as needed to allow for safe operation of approved flights.

J. 2323.61h Communication

Abandoned phonelines will be removed during the 5-year period following implementation of the Forest Plan. An environmental analysis will be prepared to determine the communication system to be used in the wilderness. The analysis will consider the use of temporary and permanent radio repeater facilities on the wilderness boundary, a wilderness network available to all four Forests, and the continued use of existing phonelines as components of the communication system.

K. 2323.62 Other Agencies

The only known structure in the wilderness that is the property of another agency is a water measurement device belonging to the U.S. Department of Commerce, National Weather Service (erected prior to wilderness classification). The gauge is read by the Forest Service. Prior to revision of the Forest Plan, managers will assess this structure and determine if its continued existence is in the public interest.

L. 2323.7 Prospecting and Mining

There are no active mining claims for locatable minerals, mines, or recently approved operating plans in the wilderness.

M. 2323.9 Research

The area included in the Border Grizzly Project extends into the wilderness. Otherwise, no research projects are underway. Should requests be received, the principal considerations in their evaluation will include: the absolute need to conduct such research in wilderness, there being no suitable land areas elsewhere; the ability to conduct the research in a manner that conforms to the language and intent of the Wilderness Act, including that there will be no timber harvesting, no manipulation of vegetation for watershed, wildlife, or forage purposes, and no use of motor vehicles, mechanized transport, motorized equipment, installations or structures; the ability to conduct the research relying on simple tools, primitive skills, and mental processes. All requests for research require the Regional Forester's approval, except where the contemplated use requires Chief's approval.

N. 2324.21 Fire Prevention

FSM 5110 shall apply to this wilderness complex, modified as necessary to accommodate recommendations in the cultural resource assessment when it is approved.

O. 2326 Motorized and Mechanical Equipment Use

Any use of motorized and mechanical equipment must be approved in advance of use by the Chief, except as approval has been assigned to the Regional Forester (2326.04b) and the Forest Supervisor (2326.04c).

APPENDIX E

**PROPOSED LEWIS & CLARK
NATIONAL FOREST PLAN**

**INTERAGENCY WILDLIFE MONITOR/
EVALUATION PROGRAM**

INTERAGENCY WILDLIFE MONITOR/ EVALUATION PROGRAM

ROCKY MOUNTAIN FRONT AREA

NOVEMBER 1980

USDA Forest Service

USDI Fish and Wildlife Service

USDI Bureau of Land
Management

Montana Department of Fish,
Wildlife and Parks

INTRODUCTION

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WILDLIFE MONITOR/EVALUATION PROGRAM

Rocky Mountain Front Area

USDA Forest Service

USDI U.S. Fish and Wildlife Service

USDI Bureau of Land

Montana Department of Fish, Wildlife

Management

and Parks

As agreed to in the Charter, dated April 18, 1980, this program is needed for the following purposes:

1. To monitor the extent of wildlife displacement, in relation to time and space, caused by various levels of human activity.
2. To monitor wildlife population parameters to determine changes brought about by human activities.
3. To monitor wildlife habitat changes brought about by human activities and determine the effects which result in relation to time and space.

I. Human Activities Identified

- A. Human activities in the Rocky Mountain Front area which effect present wildlife populations and values are:
 1. Livestock grazing
 2. Land Development (subdivision)
 3. Timber harvest
 4. Mineral exploration
 - a. Seismic activity
 - b. Exploratory drilling
 5. Recreation
 - a. Dispersed activity
 - (1) Hunting
 - (2) Off road vehicles
 - (3) Fishing
 - (4) Hiking and backpacking
 - b. Developed Recreation
 - (1) Campgrounds
 - (2) Recreation Residences
 - (3) Resorts
 6. Road construction and access.

- B. Two levels of human activity are identified and are related to the activities shown above:
1. Low level
 - a. Present livestock grazing
 - b. Widely scattered improvements and homebuilding. Little or no subdivision.
 - c. Small timber sales, mostly post and poles.
 - d. Extensive seismic activity. Annual work on a broad grid.
 - e. Infrequent exploratory drilling. One well every two or three years.
 - f. Present levels of recreation use.
 2. High level
 - a. Increase in sub-division and homebuilding.
 - b. Increased level of timber harvest with associated roads.
 - c. Increased seismic activity. Narrowed to smaller target grid with repeated coverage scheduled over two or three year time period.
 - d. Increased exploratory drilling. Two (2) or more wells per year in the same or adjacent topographic area which would inhibit or curtail animal movement.
 - e. Production of gas and/or oil.

The area is presently at the low activity level. The monitoring program is affected by the level of activity and the prediction of when activity levels are expected to increase.

II. The April 18, 1980 Charter identified the following objectives:

- A. Identify those management indicator species which should be monitored to determine displacement, changes in population characteristics, changes in habitat. (Part III responds to this objective.)
- B. For each indicator species:
 1. Recommend monitoring procedures and build an incremental program to start, or continue, to obtain needed information. As part of the program identify: data summarization/review/evaluation target dates and decision target dates for continuing/expanding/reducing/terminating individual indicator species work. (Parts V and VII respond to this objective.)
 2. Recommend specific areas and monitoring needs where the monitoring procedures will be implemented. (Part V responds to this objective.)
- C. Recommend which agency or agencies should be responsible for various aspects of the monitor program. (Part VI responds to this objective.)

- D. Recommend target dates and personnel for the development of resource management guidelines based on the data obtained from the monitoring procedures. (Parts VIII and IX respond to this objective.)
- E. Develop this information into a program format for approval of the agencies involved. (This packet responds to this objective.)

III. Management indicator species identified from the total potential species list are as follows (objective 1):

- A. Grizzly Bear
- B. Wolf: prey base
 - 1. Mule Deer
 - 2. Elk
- C. Mountain Goat
- D. Bighorn Sheep
- E. Furbearers
 - 1. Mink
 - 2. Beaver
 - 3. Muskrat
- F. Cliff Raptors
 - 1. Peregrine falcon
 - 2. Prairie falcon
 - 3. Golden eagle
- G. Tree Raptors
 - 1. Merlin falcon
 - 2. Goshawk
 - 3. Red tailed hawk
 - 4. Barred owl
- H. Passerine birds and small mammals

IV. Monitoring Results

- A. Establish present seasonal species movement patterns in specific areas and subsequently seasonal habitat use.
- B. Identify movement patterns caused by human activity. (75% of monitoring/evaluation program will be involved with these two results - A and B.)

- C. Establish present age and sex structure of population.
- D. Establish present reproductive rate.
- E. Establish present habitat vegetative condition.
(25% of monitoring/evaluation program will be involved with these three results - C, D and E.)
- F. Review, analyze and summarize all previously accumulated data on the species to be monitored and incorporate it into monitoring program to the extent possible. This will be done by a technical committee made up of interagency specialists and the monitoring work group members in order to establish current baseline information and to help measure monitoring progress.
- G. Establish baseline with five or six years of data assembled, summarized, interpreted, and developed into management guidelines.

V. Monitoring Priorities, Procedures and Indicated Cost.
(Objectives 2a and 2b)

- A. Grizzly bear - baseline (Sun River North)
 - 1. Area - Sun River main drainage north to Highway 2 with emphasis on trapping and collaring in the Pine Butte swamp, Antelope Butte swamp and Ear Mountain areas.
 - 2. Procedure - 10-12 radios with additional if determined to be necessary.
 - weekly aerial surveys April - Nov. (32)
 - weekly ground surveys April - Nov. (32)
 - Two flights per month in March and December (4)
 - 3. Indicated cost
 - Equipment and flight costs \$17,000 per year
 - Personnel, travel and administration (20 on-the-ground work months) \$57,600 per year
 - October 1980 - September 1984
 - (18 person year @ GS-9/\$22M, \$14M Adm., \$4M travel)
- B. Mule Deer (Wolf Prey Base) - baseline (Sun River North)
 - 1. Area - Sun River main drainage north to Birch Creek with emphasis on collaring on winter-spring concentration areas.
 - 2. Procedure - 20-25 radios
 - 70-75 neckbands
 - two intensive aerial surveys, one winter - one spring

3. Indicated cost

Equipment and flight costs	\$8000 per year
Personnel, travel and administration	\$40,000 per year

 (12 on-the-ground work months)
 October 1980 - September 1984
 (1 person year @ GS-9/\$22M, \$14M Adm., \$4M travel)

- C. Bighorn Sheep baseline (Teton River North)
 1. Area - Main Teton Drainage north to Two Medicine Drainage with collaring emphasis on winter-spring concentration areas.
 2. Procedure - 5 radios

25 neck bands
Biweekly aerial flights April - Dec. (18)
On-ground surveys
 3. Indicated Costs

Equipment and flight costs	\$8500 per year
Personnel, travel and administration	\$13,500 per year

 (4 on-the-ground work months)
 October 1980 - September 1985
 (1/4 person year @ GS-9/\$7.4M, \$4.7M Adm., \$1.4M travel)

- D. Elk (Wolf Prey Base) - baseline (Telon - Dearborn)
 1. Area - Main Teton Drainage south to Dearborn drainage with collar emphasis on winter range and calving areas.
 2. Procedure - 10 radios

20-25 neck bands
Biweekly flight May - June (18)
Monthly flight Feb - April (3)
30 hours helicopter time
Winter counts monthly-Dec.- April (2)
Summer air production count
Winter survival classification biweekly Dec. - April
Annual vegetation benchmarks for vegetative condition and utilization
 3. Indicated costs

Equipment and flights costs	\$20,000 per year
Personnel, travel and administration	\$23,500 per year

(7 on-the-ground work months)
October 1980 - September 1985
(7/12 person year @ GS-9/\$12.9M, \$8.2M Adm., \$2.4M travel)

E. Mountain Goat - baseline (Sun River North)

1. Area - Sun River north to Birch Creek drainage with collar emphasis on winter-spring range concentration areas.
2. Procedure
 - 10 radios
 - 15-20 neckbands
 - Aerial flights biweekly yearlong (26)
 - round surveys
3. Indicated Costs
 - Equipment and flight costs \$10,500 per year
 - Personnel, travel and \$44,000 per year
 - Administration(13 person months on-ground work)

F. Raptor Survey (Entire Front)

- Objectives A., B., C., D. in Part IV pertain to Raptors.
One additional objective also applies: Identify foraging areas.
1. Area - Rocky Mountain Front starting with the Sun River Drainage and working north and then south.
 2. Procedure
 - Photo delineation of suitable areas
 - Nesting Season surveys April - July
 - Fall-winter surveys Nov. - Dec.
 3. Indicated Costs
 - Equipment costs \$2000 first year
 - Personnel, travel and \$23,200 per year
 - Administration(10 person months on-ground work)
October 1980 - September 1984
(2 seasonal employees/\$12.2M, \$6M Adm., \$5M travel)

G. Furbearers - baseline (Blackleaf)

1. Area - Blackleaf ponds
2. Procedures - Gauging station
ground observation
harvest data
3. Indicated costs
 - Equipment and supplies \$1,700 per year
 - Personnel, travel, adm. \$11,500 per year(4 on the ground work months)
October 1981 - September 1984
(1 seasonal employee - \$5M, \$5M Adm, \$1.5M travel)

- H. Passerine Birds and small mammals - baseline (Entire Front)
1. Area - Different habitat types with emphasis in the riparian vegetative types along front.
 2. Procedure - Populations will be sampled by predetermined linear transects established in riparian zones and other vegetative types.
 3. Indicated Costs

Equipment Costs	\$500 per year
Personnel, Travel and administration	\$40,000 per year

 October 1981 - September 1982
 (1 person year @ GS-9/22M, \$14M Adm., \$4M travel)
- I. Grizzly Bear - (Sun River South)
1. Area - Sun River main drainage south to Highway 200 with emphasis on trapping and collaring in the Haystack Butte-Sheep Mountain country.
 2. Procedure - 5 or 6 radios with additional if determined to be necessary.

Weekly aerial surveys	April - Nov. (32)
Weekly ground surveys	April - Nov. (32)
Two flights per month in March and December	
 3. Indicated Cost

Equipment and flight costs	\$12,000 per year
Personnel, travel and Administration	\$31,000 per year

 (8 on-the-ground work months)
 October 1981 - September 1987
 (3/4 person year @ GS-9/\$17M, \$11M Adm., \$3M travel)
- J. Elk (Wolf Prey Base) - baseline (Teton North)
1. Area - Teton River drainage north to Highway 2 drainage with collar emphasis on winter range and calving areas.
 2. Procedure

10 radios	
20-25 neck bands	
Biweekly flight	May - June (18)
Monthly flight	Feb.- April (3)
30 hours helicopter time	
Winter counts monthly	Dec.- April (2)
Summer air production count	
Winter survival classification biweekly	
Dec.- April.	
Annual vegetation benchmarks for vegetative condition and utilization	
 3. Indicated Costs

Equipment and flight costs	\$20,000 per year
Personnel, travel and Administration	\$23,500 per year

 (7 on-the-ground work months)
 October 1982 - September 1987
 (7/12 person year @ GS-9/\$12.9M, \$8.2M Adm., \$2.4M travel)

- K. Mule Deer (Wolf Prey Base) - baseline (Sun - Dearborn)
 Much of this work should logically be done in conjunction with Elk work in same area.
1. Area - Sun River main drainage south to Dearborn main drainage with collar emphasis on winter-spring concentration areas.
 2. Procedure
 - 10-12 radios
 - 30-35 neck bands
 - Two intensive aerial surveys, one winter-one spring.
 - Biweekly aerial surveys year long (26)
 - Weekly on-ground classification (52)
 - Annual vegetation inventory on benchmark measurements.
 3. Indicated Cost
 - Equipment and flight costs \$8000 per year
 - Personnel, travel and \$22,000 per year
 - Administration
 - (6 on-the-ground work months)
 - October 1983 - September 1987
 - (1/2 person year @ GS-9/\$11M, \$7M Adm., \$2M travel)
- L. Bighorn Sheep - baseline (Teton - Dearborn)
1. Area - Teton River drainage south to the main Dearborn drainage with collaring emphasis on winter-spring range concentration areas.
 2. Procedure
 - 10-15 radios
 - 40-50 neck bands
 - Biweekly flights April - Dec. (18)
 - On-ground surveys
 3. Indicated Costs
 - Equipment and supplies \$8000 per year
 - Personnel, Travel and \$31,000 per year
 - Administration
 - 9 work months on the ground
 - October, 1984 - September, 1989)
 - (3/4 person year @ GS-9/\$17M, \$11M Adm., \$3M travel)
- M. Mountain Goat - baseline (Birch - North)
1. Area - Main Birch Creek drainage north to Two Medicine drainage with collar emphasis on winter-spring range concentration areas.
 2. Procedures - 10 radios
 - 15-20 neckbands
 - Aerial flights biweekly yearlong (26)
 - Ground surveys
 3. Indicated costs
 - Equipment and flight costs \$10,500 per year
 - Personnel, travel and adm \$44,000 per year
 - (13 person months work on ground)
 - October 1984 - September 1989
 - (1 1/12 person year @ GS-9/24M, 16M Adm., 4M travel)

- N. Mule Deer (Wolf Prey Base) - baseline (Dearborn South)
1. Area - Dearborn drainage south to Highway 200 with collar emphasis on winter-spring range concentration areas.
 2. Procedures - 7-8 radios
 - 20 - 25 neckbands
 - 2 intensive aerial surveys, one winter - one spring
 - Bi-weekly aerial survey yearlong (26)
 - Weekly on ground classification
 - Annual vegetation inventory on benchmark measurements
 3. Indicated costs
 - Equipment and flight costs \$8,000 per yr
 - Personnel, travel and adm. \$15,000 per yr
 - 4 on the ground work months)
 - October 1984 - September 1990
 - (1/3 person year @ GS-9/\$8M, \$5M Adm, \$2M travel)
- O. Elk (Wolf Prey Base) - baseline (Dearborn - South)
1. Area - Main Dearborn drainage south to Highway 200 with collar emphasis on winter range and calving areas.
 2. Procedure - 10 radios
 - 20-25 neckbands
 - Biweekly flight May - June (18)
 - Monthly flight Feb - April (3)
 - 30 hours helicopter time
 - Winter counts monthly Dec - April (2)
 - Summer air production count
 - Winter survival classification weekly Dec-April
 - Annual vegetation benchmarks for vegetative condition and utilization.
 3. Indicated costs
 - Equipment and flight costs \$20,000
 - Personnel, travel, adm. \$23,500
 - (7 on the ground work months)
 - October 1985 - September 1990
 - (7/12 person year @ GS-9/12.9M, \$8.2M Adm, \$2.4M Travel)

Low Activity Levels - Indicated Total Costs Summary

Tabular Summary & Schedule of Costs

	10/80- 9/81	10/81- 9/82	10/82- 9/83	10/83- 9/84	10/84- 9/85	10/85- 9/86	10/86- 9/87	10/87- 9/88	10/88- 9/89	10/89- 9/90
1. Grizzly Bear - Sun	74.6M	74.6M	74.6M	74.6M						
2. Mule Deer - Sun No.	48.0M	48.0M	48.0M	48.0M						
3. Big Horn - Teton No.	22.0M	22.0M	22.0M	22.0M	22.0M					
4. Elk - Teton So.	43.5M	43.5M	43.5M	43.5M	43.5M					
5. Mtn. Goat - Sun North	54.5M	54.5M	54.5M	54.5M						
6. Raptor Survey	25.2M	23.2M	23.2M	23.2M						
7. Furbearers - Blackleaf		13.2M	13.2M	13.2M						
8. Passerine Birds - Sun		40.5M								
9. Grizzly Bear - Haystack		43.0M	43.0M	43.0M	43.0M	43.0M	43.0M			
10. Elk - Teton North			43.5M	43.5M	43.5M	43.5M	43.5M			
11. Mule Deer - Sun So.				30.0M	30.0M	30.0M	30.0M			
12. Big Horn - Teton So.					39.0M	39.0M	39.0M	39.0M	39.0M	
13. Mtn. Goat - Birch No.					54.5M	54.5M	54.5M	54.5M	54.5M	
14. Mule Deer - Dearborn					23.0M	23.0M	23.0M	23.0M	23.0M	23.0M
15. Elk - Sun So.					43.5M	43.5M	43.5M	43.5M	43.5M	43.5M
Totals	267.8M	362.5M	365.5M	395.5M	342.0M	276.5M	276.5M	160.0M	160.0M	66.5M

Monitoring Program Cost Summary Showing Total Costs And Presently Committed Funds 11/80
Tabular Summary & Schedule of Costs with Committed Funds Identified

Priority	Species/Area	FY81 10/80-9/81	FY82 10/81-9/82	FY83 10/82-9/83	FY84 10/83-9/84	FY85 10/84-9/85	FY86 10/85-9/86	FY87 10/86-9/87	FY88 10/87-9/88	FY89 10/88-9/89	FY90 10/89-9/90
1	Grizzly Bear-Sun River North	74.6 40(F)	74.6	74.6	74.6						
2	Mule Deer-Sun River North	48 38(F)	48 19(F)	48	48						
3	Big Horn-Teton River North	22 3(F)	22 3(F)	22 3(F)	22 3(F)	22 3(F)					
4	Elk-Teton River South to Dearborn	43.5 5(F)	43.5 5(F)	43.5 5(F)	43.5 5(F)	43.5 5(F)					
5	Mtn. Goat-Sun River North	54.5 44(F)	54.5	54.5	54.5						
6	Raptor Survey	25.2	23.2	23.2	23.2						
7	Furbearers-Blackleaf		13.2	13.2	13.2						
8	Passerine Birds		40.5								
9	Grizzly Bear-Haystack		43	43	43	43	43	43			
10	Elk-Teton River Highway 210			43.5 5(F)	43.5 5(F)	43.5 5(F)	43.5	43.5			
11	Mule Deer-Sun River South to Dearborn			30	30	30	30				
12	Big Horn-Teton River South					39 9(F)	39	39	39	39	
13	Mtn. Goat-Birch Cr. North					54.5	54.5	54.5	54.5	54.5	
14	Mule Deer-Dearborn River South					23	23	23	23	23	23
15	Elk-Dearborn River South						43.5	43.5	43.5	43.5	43.5
Total		267.3	362.0	365.0	365.0	276.5	276.5	276.5	160.0	160.0	66.5
Presently Funded		130(F)	27(F)	13(F)	22(F)	-	-	-	-	-	-
Additional Funds Needed		137.3	335.0	352.0	352.0	354.5	276.5	276.5	160.0	160.0	66.5

- NOTE: 1. All dollars are in thousands.
2. All costs are for low activity level.
3. Amounts followed by a (F) are fairly firm commitments for funds by the four agencies.
4. Do not have flexibility to move presently committed funds between priorities.
5. Total amount in each box includes the funded (F) amount.

The costs addressed above are for baseline objectives at the low activity level. Should a higher activity level occur after the baseline objectives are completed the same monitoring - evaluation process should be re-initiated in order to determine change brought about by high levels of human activity.

Should a higher activity level occur prior to the time a baseline program is scheduled for an area, that baseline program should be initiated two years prior to the time the activity level is permitted.

Should a higher level of activity occur after the initiation of a baseline monitoring program the work group will meet and determine what increases in monitoring efforts, if any, may be needed.

VI. Agency Responsibility (Objective 3)

Due to the land ownership patterns, the land area that is subject to some sort of federal regulation, and the activities and location of activities which are predicted to take place in the next five to ten years, the following funding levels should be sought by the agencies involved:

	10/80- 9/81	10/81- 9/82	10/82- 9/83	10/83- 9/84	10/84- 9/85	10/85- 9/86	10/86- 9/87	10/87- 9/88	10/88- 9/89	10/89- 9/90
FS(30%)	80.2M	108.6M	109.5M	109.5M	83.0M	83.0M	82.9M	48.0M	48.0M	20.0M
BLM(30%)	80.3M	108.6M	109.5M	109.5M	83.0M	82.9M	83.0M	48.0M	48.0M	20.0M
USFW(10%)	26.7M	36.2M	36.5M	36.5M	27.6M	27.6M	27.6M	16.0M	16.0M	6.6M
MFWP(30%)	80.3M	108.6M	109.5M	109.5M	82.9M	83.0M	83.0M	48.0M	48.0M	19.9M
TOTAL	267.5M	362.0M	365.0M	365.0M	276.5M	276.5M	276.5M	160.0M	160.0M	66.5M

The major portion of the field data will be obtained through sources outside of the Federal agencies. The Montana Department of Fish, Wildlife, and Parks has the capability to tap sources for obtaining this data and will be the main pivot for data collection. Annual programs of work will be worked out with MDFWP for the funds they receive from the Federal agencies. These programs will be based on the monitoring program priorities as agreed to.

All funds are not intended to reach MDFWP. These funds will also be used for administration and time spent by the various agencies as a part of this monitor/evaluation program. Dollars needed to accomplish the "on-the-ground" work are identified in Section V.

VII. Data Summarization - Evaluation (Objective 2)

A work group consisting of the individuals involved in the data gathering, or their spokesman, as well as other individuals designated by the agencies involved will meet each February or March to review and evaluate the data gathered to date and determine what monitoring procedures might need to be modified.

Annual data reports must be prepared no later than January 15. Data reports are to be summarized on a two inch per mile map base with the necessary overlays. The map base will contain the landtypes and/or habitat delineations of each agency, to the extent possible.

- VIII. Data Interpretation for Management Guidelines (Objective 4)
A work group will be assigned by the four agencies to interpret the data obtained from the monitoring procedures and formulate management guide lines for the area using this data as a base. Interim guideline proposals will be formulated following the second year of any monitoring effort. These management guidelines will be proposed and/or modified in February or March each year.

Final guideline proposals will be formulated within one year of the completion or termination of any specific monitoring effort. All guidelines will be subject to periodic review as appropriate to determine the extent of use and applicability of the guidelines to the management direction indicated for the area.

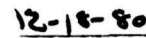
- IX. Management Guideline Approval (Objective 4)
The Forest Supervisor (FS), District Manager (BLM), Regional Director (FWP), and Area Manager (FWS), or their assigned representatives, will meet in April-May each year to review proposed guidelines, make modifications as necessary, and approve management guidelines for implementation.

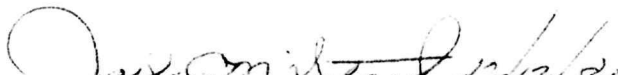
- X. Rocky Mountain Front Area Wildlife Monitor/Evaluation Program
Agreed to by:


J. DALE GORMAN
Forest Supervisor
Lewis & Clark NF
U.S.F.S


12/19/80
Date


Wally Steucke
Area Manager
U.S.FWS


12-18-80
Date


Jack A. McIntosh
District Manager
Butte District
B.L.M.


12/12/80
Date


Nels A. Thorson
Regional Supervisor
MDF, W and P


12/22/80
Date

